



*turning knowledge into practice*

**Methodology**  
**U.S. News & World Report**  
**2023-2024 Best Hospitals:**  
**Specialty Rankings**

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August 1, 2023



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## Executive Summary

**Please note that the rankings and ratings are subject to change and are not considered final until published on [usnews.com/best-hospitals](https://www.usnews.com/best-hospitals) on August 1, 2023.**

U.S. News & World Report began publishing hospital rankings in 1990, as “America’s Best Hospitals,” to identify the medical centers in various specialties best suited to patients whose illnesses pose unusual challenges because of underlying conditions, procedure difficulty, advanced age or other medical issues that add risk.

The specialty rankings have appeared annually since 1990 and their focus on identifying hospitals that excel in treating particularly difficult patients has not changed. To address patients in relatively low-acuity procedures and conditions, a complementary set of ratings, “Best Hospitals: Procedures & Conditions” is available that covers abdominal aortic aneurysm repair, aortic valve surgery, back surgery (spinal fusion), chronic obstructive pulmonary disease, colon cancer surgery, coronary artery bypass surgery, diabetes, heart attack, heart failure, hip fracture, hip replacement, kidney failure, knee replacement, leukemia, lymphoma, & myeloma, lung cancer surgery, ovarian cancer surgery, pneumonia, prostate cancer surgery, stroke, transcatheter aortic valve replacement, uterine cancer surgery, Details of these 21 ratings are available at <http://health.usnews.com/health-care/best-hospitals/articles/faq-how-and-why-we-rank-and-rate-hospitals>.

The Best Hospitals specialty rankings assess hospital performance in 15 specialties or specialty areas, from Cancer to Urology. In 12 of these, whether and how high a hospital is ranked is determined by an extensive data-driven analysis combining performance measures in three primary dimensions of healthcare: structure, process, and outcomes. In the three other specialties, ranking relies solely on expert opinion.

The structural measures include hospital volume, nurse staffing and other resources that define the hospital environment. The data source for most structural measures is the American Hospital Association (AHA) Annual Survey. Additional resources include the National Cancer Institute’s list of NIH-designated cancer centers and the American Nurses Credentialing Center’s roster of Nurse Magnet hospitals. New for the 2023-2024 rankings, in addition to hospitals’ inpatient volume, outpatient volume will be considered for certain specialties to reflect an increase in utilization of outpatient procedures.

Process is primarily determined by expert opinion surveys of board-certified physicians. We believe expert opinion can measure a hospital’s ability to develop and sustain a system that delivers high-quality care. A separate indicator of public transparency was used in four specialties. In

addition, patient experience was incorporated as a separate domain. The basis for this score is the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) patient satisfaction surveys.

Assessment of outcomes performance relies on patient survival (i.e., risk-adjusted mortality) and the rate at which hospitals discharge patients to home following inpatient care. The Standard Analytical Files (SAF) inpatient limited datasets (SAF data), maintained by the Centers for Medicare & Medicaid Services (CMS) and also referred to as the Medicare claims files, provide detailed claims data, including mortality and discharge disposition for beneficiaries in fee-for-service Medicare. In addition to two risk-adjusted outcomes, for certain specialties, outpatient outcomes are evaluated. For this measure, both inpatient and outpatient SAF data were used to compute hospital-level ambulatory potentially preventable complication rates.

No application, data submission or other action is required for Best Hospitals consideration. All facilities listed in the AHA Annual Survey Database are automatically considered, whether or not they have responded to the AHA's survey.

To be eligible for ranking, hospitals must meet certain criteria based on structural characteristics and also meet a volume/discharge threshold that varies by specialty. Setting discharge minimums ensures that ranking-eligible hospitals have demonstrable experience in treating a set number of complex cases in a given specialty. A hospital that does not meet the minimum requirement in a specialty is still eligible, however, if it was nominated by at least 1% of those who responded to the most recent three years of national physician surveys.

Starting with the 2021-2022 rankings, the project introduced inpatient rehabilitation as a data-driven ranking, which was previously based on expert opinion only. Given the unique nature of rehabilitation care, this specialty has its own eligibility requirements which are covered in ***Section II.A Eligibility***.

Rankings in Ophthalmology, Psychiatry, and Rheumatology are based solely on expert opinion as determined by the physician survey cited above.

For the 2023-2024 rankings, 164 of over 4,500 evaluated U.S. hospitals were ranked in at least one specialty.

Since 1990, the Best Hospitals Honor Roll has recognized a small group of hospitals with high rankings in multiple Best Hospitals specialties. It was extensively revised in 2016-2017 to reduce the effect of the expert opinion measure and to unify the rankings and ratings by

incorporating Best Hospitals Procedures & Conditions ratings. See **Section V. Honor Roll** for more details.

***Editor’s Note:** A key aspect of our journalistic approach is our openness to feedback from diverse stakeholders, including patients, healthcare professionals, and the institutions we evaluate. We receive and welcome a steady stream of suggestions via our team inbox, [bbmethodology@usnews.com](mailto:bbmethodology@usnews.com), and we review and carefully consider feedback. We deeply appreciate the time and thought so many correspondents have invested in formulating these suggestions over the past year and in prior years. Our mission is to serve the best interests of patients and to do so, we, like other reputable journalists, are editorially independent of our employer’s business operations. To be clear, we give no consideration to whether a correspondent is affiliated with a hospital or health system that advertises in or maintains other commercial agreements with U.S. News. A hospital’s license of a “Best Hospitals” badge or its purchase of advertising or other products from U.S. News does not affect whether or not that institution is ranked, either currently or in the future, and, if ranked, whether it is ranked higher or lower. Journalists who participate in creating rankings or ratings are not involved in the sale of products associated with those rankings or ratings.*

*Ben Harder  
Managing Editor and Chief of Health Analysis  
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# I. Introduction

For families facing a serious or complex medical problem, finding the right hospital is daunting but critical. Decision tools beyond a doctor’s recommendation, however, were nonexistent until 1990, when U.S. News & World Report introduced “America’s Best Hospitals.” That initial assessment was modest, only short alphabetical lists of hospitals that were rated—not ranked—in 12 specialties. In 1991 and thereafter, hospitals were ordinally ranked.

The 2023-2024 Best Hospitals rankings have been drawn from a universe of 4,515 facilities.\* The defined universe was the American Hospital Association’s (AHA’s) Annual Survey of Hospitals, which also provided some data for the rankings analysis. In a small number of cases, two or more AHA hospitals were combined for ranking purposes because they function as a single hospital in one or more specialties but report to AHA as separate facilities.

In 12 of the 15 adult specialty rankings, hospitals receive a composite score based on data from multiple sources. Information about unranked as well as ranked hospitals, accompanied by substantive data, are published online at [www.usnews.com/besthospitals/rankings](http://www.usnews.com/besthospitals/rankings). A print edition publishes ranked hospitals, with somewhat less data displayed than online.

It is essential to use the Best Hospital rankings for their intended purpose—to help consumers determine, together in consultation with their physicians, which hospitals provide the best care for the *most serious or complicated* medical conditions and procedures, such as pancreatic cancer, or replacement of a heart valve in an elderly patient with multiple comorbidities. Relatively commonplace conditions and procedures, such as uncomplicated heart bypass surgery, knee replacement, and heart failure are the purview of a different analysis, Best Hospitals: Procedures & Conditions.†

The underlying methodology for the Best Hospitals rankings was created by the National Opinion Research Center (NORC) at the University of Chicago in the early 1990s. NORC collected the data and compiled the rankings from 1993 to 2004. RTI International,‡ Research Triangle Park, N.C., has produced the rankings from 2005 to the present. Over time, the methodology has been refined and extended—by incorporating patient safety data in 2009 (removed in 2019), for example, and measures for voluntary data transparency in Cardiology, Heart & Vascular Surgery (added in 2016-2017), and patient experience in all specialties (added in 2019). Large-scale enhancements are

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

† Best Hospitals: Procedures & Conditions was launched in May 2015 and rates hospital performance in 21 procedures & conditions.

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

always under consideration such as the change introduced in the 2019 rankings for outcomes where a new risk-adjusted mortality measure and a measure of the rate at which hospitals discharge patients to home following inpatient care were introduced.

The roster of specialties has been revised over the years as well. AIDS care, for example, was included in 1990 but was dropped in 1998 because most HIV/AIDS care had shifted to the outpatient setting. Pediatrics was moved out of the Best Hospitals universe in 2007 when separate Best Children’s Hospitals rankings were created. In the 2021-2022<sup>§</sup> rankings, Nephrology was removed from the list of Best Hospitals specialties and was replaced with a kidney failure Procedures & Conditions rating, which covered nearly all of the same hospital admissions.

The current 15 specialty rankings are:

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

## A. Data-Driven Rankings

Rankings in 12 of the 15 specialties are based largely on objective data. An overall score (i.e., the U.S. News score) is assigned to hospitals in all data-driven specialties (i.e., all specialties other than Ophthalmology, Psychiatry, and Rheumatology, in which rankings are determined solely through expert opinion).

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<sup>§</sup> Because the rankings are released in the middle of the year, U.S. News labels them with the current and following years when referring to them. This applies to the Best Children’s Hospitals rankings as well.

A hospital's overall score reflects performance in three interlocked dimensions of healthcare: structure, process, and outcomes. The relationship was described by Avedis Donabedian in 1966; his model's fundamental soundness has been widely accepted.<sup>1-5</sup>

*Structure* refers to hospital resources related directly to patient care. Examples in the Best Hospitals rankings methodology include intensity of nurse staffing, availability of desirable technologies and patient services, and special status conferred by a recognized external body, such as designation as a Nurse Magnet hospital by the American Nurses Credentialing Center (ANCC) or as a National Cancer Institute (NCI) comprehensive or clinical cancer center by the National Institutes of Health (NIH).

Healthcare also is shaped by the *process* of delivering care, encompassing diagnosis, treatment, prevention, and patient education. Because many direct measures of process have limited relevance to the types of highly complex specialty care that is the focus of this project, a measure of expert opinion is used as a proxy for process quality. Specifically, process is represented by the expert opinion of a hospital to develop and sustain a system that delivers high-quality care.

The most evident *outcomes* measure is death, typically measured by *risk-adjusted mortality* (the likelihood of death when the patient's condition and the complexity of the case are taken into account). To address the role of socioeconomic factors in outcomes, the rankings include an adjustment to risk-adjusted mortality to take into account patients who are both Medicare- and Medicaid-eligible. Another outcome included is discharging patients to home, which focuses on the rate at which patients go home directly after inpatient care rather than being transferred to another facility for continued care. This measures how effective inpatient care delivered by hospitals is at addressing patient medical needs. For the 2023-2024 rankings, outpatient outcomes are included in two specialties, Orthopedics and Urology. New outcome measures quantify the ability of hospitals to reduce complications related to procedures conducted on an outpatient basis.

Available metrics do not always neatly conform to a single dimension. Patient experience, for example, is an outcome that reflects both the patient's satisfaction with the care they received as well as how well the hospital addressed their medical needs. Although patient experience overlaps with both process and outcomes, we consider it a fourth component in the Best Hospitals methodology, evaluated separately from structure, process/expert opinion, and outcomes.

A fifth component, public transparency, was added to Cardiology, Heart & Vascular Surgery for the 2016-2017 rankings. Hospitals received credit for participating in certain American College of Cardiology (ACC), Society of Thoracic Surgeons (STS), or American Heart Association data-reporting initiatives if they also agreed to allow their ACC-, STS-, or American Heart Association-calculated results to be publicly reported on the organizations' websites. Beginning with the 2020-

2021 rankings, hospitals that participate in and publicly report through the American Heart Association's Get With The Guidelines Stroke program received credit in Neurology and Neurosurgery rankings. A transparency credit was added to Obstetrics & Gynecology rankings for the 2022-2023 rankings; hospitals received credit if they participated in the annual U.S. News Maternity Services Survey. New for the 2023-2024 rankings, hospitals receive credit in Pulmonology & Lung Surgery rankings if they participate in and publicly report via STS General Thoracic Surgery Database (GTSD).

Many of the individual measures in the data-driven rankings come from secondary data sources such as the American Hospital Association (AHA) Annual Survey Database, which provides information about various structural hospital characteristics.

The five major components of the data-driven rankings are briefly described below and in greater detail later in this report.

## **Structure**

These elements represent volume (i.e., discharges), technology, and other features that characterize the hospital environment. Some elements such as nurse staffing, ICU specialists, and Nurse Magnet status are included in all specialties, while other elements are specialty-specific. The source for many of these data elements in the 2023-2024 rankings was the 2021 AHA Annual Survey, the most recent available.

The source of volume data was the Standard Analytical Files (SAF), maintained by the Centers for Medicare & Medicaid Services (CMS) and also referred to as the Medicare claims files, which provide detailed claims data, for all traditional (fee-for-service) Medicare beneficiaries who use hospital inpatient services. Two specialties, Obstetrics & Gynecology and Ear, Nose, & Throat, included procedures performed in hospital based outpatient departments starting from the 2023-2024 publication. These procedures were identified using 3M's Ambulatory Potentially Preventable Complications (AM-PPCs) grouper software, which assigns each episode to a Procedure Sub Group (PSG) using HCPCS or ICD codes (see Table 6 for more details). To account for Medicare Advantage patients, volume was calculated for hospitals in each specialty using an adjustment described below (see Number of Patients subsection under **Section II.B Structure**, below). As a result, the volumes reported represent estimates rather than observed volumes of care at each hospital.

## Process/expert opinion

The process component of the overall score is represented by experts' opinion of a hospital. For these rankings, the concept of expert opinion speaks to an institutional ability to develop and sustain a system that delivers high-quality care to especially challenging patients.

A hospital's expert opinion score is based on the average number of nominations from the three most recent annual surveys of board-certified physicians conducted for the Best Hospitals rankings which, for the 2023-2024 rankings, were conducted in 2021, 2022, and 2023.

The 2023 sample was drawn from the Doximity Masterfile. Similar to the American Medical Association (AMA) Physician Masterfile, which was used as the sampling frame prior to 2016, Doximity's comprehensive Physician Database includes nearly every practicing U.S. physician. More information on the sampling approach for the physician survey can be found in ***Section II.D Process/Expert Opinion***.

The physician sample was stratified by census region— Northeast, Midwest, South and West ([https://www2.census.gov/geo/pdfs/maps-data/maps/reference/us\\_regdiv.pdf](https://www2.census.gov/geo/pdfs/maps-data/maps/reference/us_regdiv.pdf))—and by specialty to ensure appropriate representation. The final aggregated sample included both medical and osteopathic physicians in all 50 states and the District of Columbia.

The surveyed physicians were asked to nominate the hospitals in their specific field of care, leaving aside issues of expense or location, that they consider best for patients with serious or difficult conditions. They could list as many as five hospitals and the scores were adjusted based on a physician's current affiliation. The effect of these adjustments is to give higher weight to the opinions of unaffiliated physicians than to those of affiliated physicians, particularly in cases where a hospital received a relatively large proportion of its nominations from affiliated physicians.

## Outcomes

The primary outcomes measure in 11 of the 12 data-driven rankings (except Rehabilitation) is 30-day patient survival (i.e., how many patients are alive at 30 days after inpatient hospital admission). Like the volume indicator, the mortality measure is derived from SAF data, so only patients receiving care under traditional Medicare and 65 years of age or older were included. As in previous years, Medicare Advantage patients are not included in the outcomes. For each hospital and specialty, U.S. News computed an adjusted mortality rate based on the Medicare Severity Diagnosis-Related Group (MS-DRGs) appearing in the SAF data for the group of DRGs that appear in *Appendix B* for each of the specialties. This method was applied to the three most recent

calendar years (CY2019, CY2020, and CY2021) of Medicare claims submitted for reimbursement to CMS that appeared in the SAF data.

Starting with the 2019-2020 rankings, a discharging patients to home measure was included. This measure reflects the risk-adjusted rate at which patients are discharged to home rather than another facility (e.g., skilled nursing facility, long-term acute care facility, another acute care hospital) for additional care.

Both of the claims-based outcomes described above were risk-adjusted using a hierarchical logistic regression model that controlled for potential confounders, with a random intercept for hospital identity. Details on the model specified for each cohort are described in ***Section II.C Outcomes***. In all instances, continuous variables were treated as such in our composite modeling in order to make maximum use of the information contained in the variable, and to minimize the risk of measurement error due to categorization.

New with the 2023-2024 rankings, an outcome measure of potentially preventable complications following certain outpatient procedures was added to the methodology for Orthopedics and Urology. This measure is described in ***Section II.C Outcomes***.

For inpatient rehabilitation, mortality is not a meaningful outcome as it rarely occurs, and the main focus of treatment is on functional improvement, community discharge, and avoidance of future acute care where possible. As a result, the rehabilitation rankings now include measures focused on avoiding readmissions and successful discharge to the community. These measures are described in more detail in ***Section II.C Outcomes***.

## **Patient Experience**

Patient experience is used to assess the patient-reported outcomes of care at hospitals eligible for the rankings. This measure reflects the patient experience of care as reported on the HCAHPS survey of recently discharged patients or family members for patients who have died since hospital discharge. The rankings utilize the linear mean score rather than the HCAHPS star rating for the ranking calculation because the former is a continuous measure and provides more information for analysis. However, the star ratings are shown in the ranking tables online and in the methodology report as they provide an accessible and easy way for consumers to understand the score. The HCAHPS dataset used for analysis was dated April 1, 2021 through March 31, 2022.

## **Public Transparency (Cardiology, Heart & Vascular Surgery, Obstetrics & Gynecology, Neurology & Neurosurgery, and Pulmonology & Lung Surgery)**

In the Cardiology, Heart & Vascular Surgery, Obstetrics & Gynecology, Neurology & Neurosurgery, and Pulmonology & Lung Surgery specialty rankings, hospitals receive a credit if they participate in and publicly report via key clinical registries or public transparency programs. A brief description of the transparency measures is provided below.

In the Cardiology, Heart & Vascular Surgery specialty, since 2016, hospitals have received credit worth up to 3% of the overall score for participating in transparency initiatives. This year, hospitals received credit by publicly reporting quality metrics through websites maintained by the American College of Cardiology ([www.cardiosmart.org](http://www.cardiosmart.org)), the Society of Thoracic Surgeons ([www.sts.org](http://www.sts.org)), and the American Heart Association (<https://qualitynearme.heart.org/GWTGPublicReporting>). This year's rankings considered each hospital's public reporting status as of August 31, 2022 for the American Heart Association registries and December 5, 2022 for the ACC registry and December 23, 2022 for the STS registry. Support for the use of this measure consists of a demonstrated association between public reporting of evidence-based hospital performance metrics with better quality of care and improved hospital performance.<sup>6-11</sup>

A similar transparency measure, added in 2020, is worth 3% of the overall score for the Neurology & Neurosurgery specialty. Hospitals voluntarily reporting stroke care measures to the public through the Get With The Guidelines (GWTG)-Stroke quality improvement program of the American Heart Association (<https://www.heart.org/en/professional/quality-improvement/get-with-the-guidelines/get-with-the-guidelines-stroke>) as of August 31, 2022 received credit.

A similar transparency measure, added in 2022, is worth 3% of the overall score for the Obstetrics & Gynecology specialty. Hospitals voluntarily reporting on the U.S. News Maternity Services Survey in 2022 received credit; U.S. News uses data from the Maternity Services Survey to produce Best Hospitals for Maternity Care ratings.

A new transparency measure, added in 2023, is worth 3% of the overall score for the Pulmonology & Lung Surgery specialty. Hospitals that submit their Lobectomy data via the Society of Thoracic Surgeons (STS) General Thoracic Surgery Database (GTSD) and were publicly reporting their results by December 31, 2022 were recognized in the rankings.

## Weighting

Weights are shown in *Table 1*.

**Table 1. 2023-24 Overall Weight by Component**

Component	Cardiology, Heart & Vascular Surgery, Obstetrics & Gynecology, Neurology & Neurosurgery, and Pulmonology & Lung Surgery	Rehabilitation (%)	All Other Specialties (%)
Outcomes	45%	30%	45%
Structure	35%	35%	35%
Process/expert opinion	12%	35%	15%
Patient experience	5%	0%	5%
Public transparency	3%	0%	0%

## B. Expert Opinion-Based Rankings

In the three specialties—Ophthalmology, Psychiatry, and Rheumatology—in which ranking reflects the results of the expert opinion survey alone, that is because many structural and outcomes measures are not applicable since care is largely delivered on an outpatient basis and poses a very small risk of death. For this report, these specialties are referred to as *expert opinion-based specialties* and the associated rankings as *expert opinion-based rankings*.

## C. Report Outline

The remainder of this report is structured as follows:

- **Section II** describes the data-driven components in detail. (For a more detailed review of the foundation, development and use of the individual measures and the composite index, see “Best Hospitals: A Description of the Methodology for the Index of Hospital Quality.”<sup>12</sup>)
- **Section III** describes the process used to develop the rankings for the three expert opinion-based specialties.
- **Section IV** describes the number of hospitals ranked in at least one specialty.
- **Section V** presents the Honor Roll, an additional classification that denotes excellence across a broad range of specialties, procedures and conditions.



- *Section VI* summarizes changes in the methodology for the current year.
- *Section VII* describes enhancements under consideration.

## II. Data-Driven Rankings

This section describes hospital eligibility criteria and the procedures used to derive the overall score for the 12 data-driven specialties. Hospitals ranked in 2023-2024 as a result of new or merged corporate entities in the AHA database are treated as single units and are listed as such in this report.

### A. Eligibility

All 4,515 community hospitals included in the FY2021 AHA universe were automatically considered for ranking;\*\* no request, application or other action was required. For the data-driven specialties other than rehabilitation, the methodology involved two stages of eligibility criteria; hospitals had to satisfy the requirements of each stage to be eligible in a given specialty.

**Stage 1.** A hospital that met *any* of the following criteria was initially eligible:

- Member, Council of Teaching Hospitals (COTH)
- Medical school affiliation (AMA or American Osteopathic Association [AOA])
- At least 200 hospital beds set up and staffed (from FY2021 AHA Annual Survey of Hospitals, variable BDTOT)
- At least 100 hospital beds set up and staffed *and* availability of at least four of eight important key technologies (see *Advanced Technologies*).

Hospitals that met Stage 1 and responded to the AHA Annual Survey of Hospitals in 2019 and 2020 but not in 2021 remained eligible. For such hospitals, we used survey data from 2020. Nonresponders lacking data from the current survey and one of the previous two surveys were evaluated without AHA data. A total of 2,320 hospitals successfully passed the first stage of the eligibility process.

**Stage 2.** To be eligible for ranking in a specialty, a hospital had to have a specified number of discharges in a defined list of specialty-specific diagnoses submitted for CMS reimbursement in CY2019, CY2020, and CY2021 combined. In Obstetrics & Gynecology and Ear, Nose, & Throat

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\*\* Military installations, federal institutions, rehabilitation, and acute long-term care facilities, and also institutional hospital units (e.g., prison hospitals, college infirmaries) were excluded.

specialties, the number of outpatient volume was incorporated when computing discharge minimums. Setting discharge minimums involving complex care ensures that ranking-eligible hospitals can demonstrate that they have treated adequate numbers of challenging cases in a given specialty. Minimums for all specialties will be reviewed for future rankings and adjusted as needed.

**Table 2** presents the minimum Medicare Advantage (MA)-adjusted discharge volumes (unless otherwise specified) required for eligibility and numbers of hospitals meeting the MA-adjusted volume criteria for the data-driven specialties (see **Section II.B Structure**). In Diabetes & Endocrinology, Ear, Nose & Throat, and Obstetrics & Gynecology, both the MA-adjusted volume and unadjusted volume were considered and hospitals had to have volumes that met the minimum values for each. Additionally, in Ear, Nose & Throat and Obstetrics & Gynecology, outpatient data was included in the total discharge volume. Therefore, hospitals in these specialties had to meet both total volume and inpatient volume thresholds.

**Table 2. Discharge Thresholds by Specialty**

Specialty	Total Discharge Minimum (Unadjusted)	Inpatient Minimum (Unadjusted)	Total Discharge Minimum (MA-Adjusted)	Surgical Minimum (MA-Adjusted)
Cancer	—	—	187	36
Cardiology, Heart & Vascular Surgery	—	—	1,725	800
Diabetes & Endocrinology	210	—	226	—
Ear, Nose & Throat <sup>a</sup>	240	80	12	3
Gastroenterology & GI Surgery	—	—	429	115
Geriatrics	—	—	2,570	—
Neurology & Neurosurgery	—	—	247	21
Obstetrics & Gynecology <sup>a</sup>	200	67	16	4
Orthopedics	—	—	256	228
Pulmonology & Lung Surgery	—	—	1,277	—
Rehabilitation	50	—	—	—
Urology	—	—	40	19

<sup>a</sup> Total discharge minimums for this specialty incorporate outpatient volume.

If a hospital did not meet the volume requirements, it was still considered eligible in a specialty if its expert opinion score was 1% or greater. The total number of hospitals in each specialty that became eligible due to their expert opinion score is also shown in **Table 3**.

A total of 2,311 hospitals met the volume criteria in at least one specialty, and nine other hospitals became eligible because they had a 1% or higher expert opinion score in at least one specialty. In all, 2,320 unique hospitals were eligible for at least one data-driven ranking.

**Table 3. Number of Eligible Hospitals by Specialty**

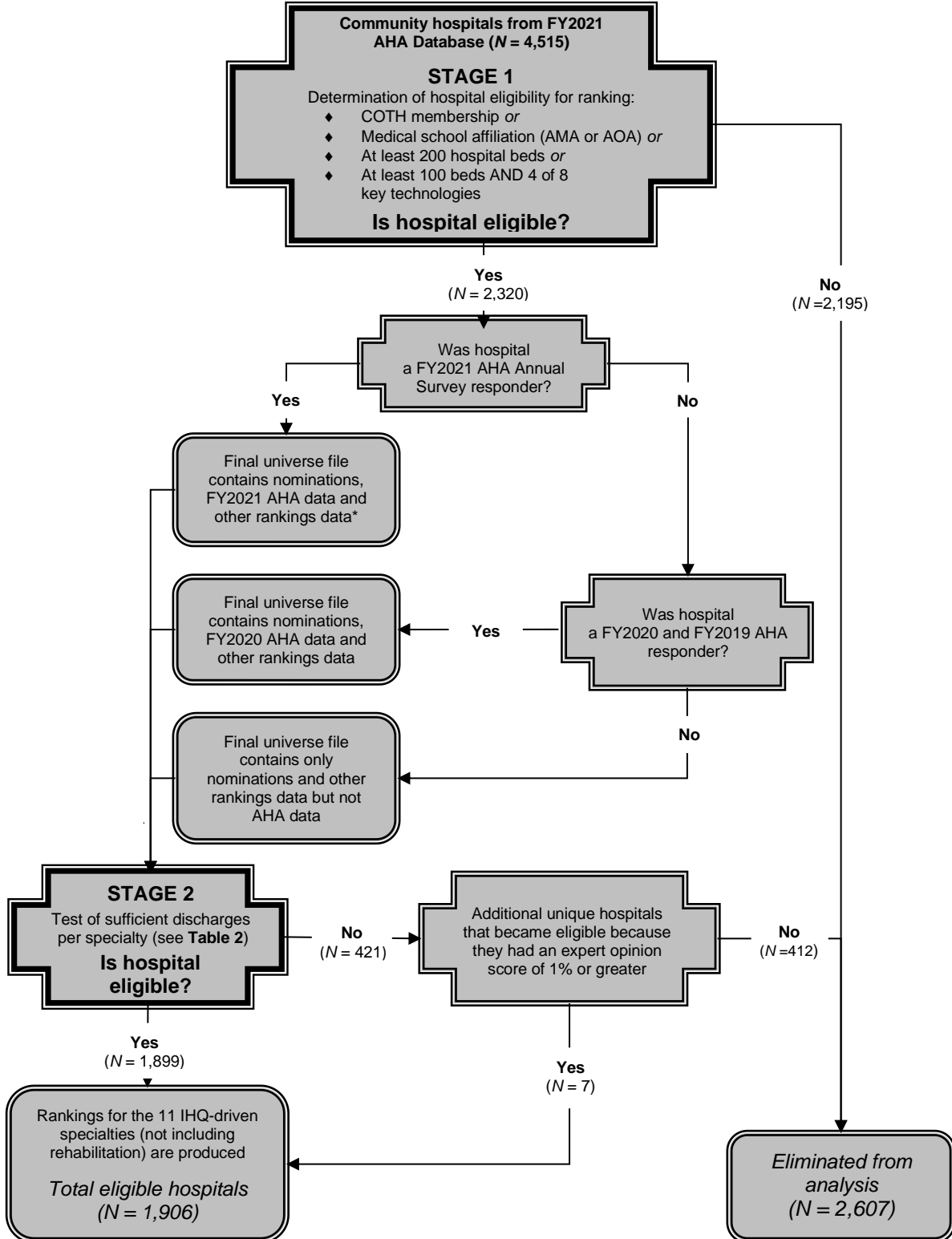
Specialty	Additional Eligibility Criteria	Number of Eligible Hospitals Based on Minimum Discharges	Additional Hospitals with $\geq 1\%$ Expert Opinion Score	Final Eligible Total
Cancer		898	1	899
Cardiology, Heart & Vascular Surgery	Must be eligible for Procedures & Conditions in one of the cardiac services cohorts for the current year	779	0	779
Diabetes & Endocrinology		699	1	700
Ear, Nose & Throat		140	4	144
Gastroenterology & GI Surgery		1,581	0	1,581
Geriatrics	Must offer at least one of the following services: <ul style="list-style-type: none"> <li>- arthritis treatment center,</li> <li>- adult day care program,</li> <li>- patient representative services,</li> <li>- geriatric services,</li> <li>- meals on wheels,</li> <li>- assisted living,</li> <li>- transportation to health facility, or</li> <li>- Alzheimer's center service</li> </ul>	1,513	0	1,513
Neurology & Neurosurgery	Must have a ratio of surgical to total discharges at or above the 25 <sup>th</sup> percentile	1,245	0	1,245
Obstetrics & Gynecology	Must be eligible for the U.S. News Maternity Services survey for the current year	280	3	283
Orthopedics		1,681	0	1,681
Pulmonology & Lung Surgery	Must have a ratio of sepsis to all other cases that is lower than 3 standard deviations above the mean	1,695	1	1,696
Rehabilitation		1,038	3	1,041
Urology		1,472	0	1,472
Total (unique hospitals) <sup>a</sup>		2,311	9	2,320

<sup>a</sup> The totals are not sums. The same hospitals may be eligible in multiple specialties. This line represents the total unique hospitals in each category across all specialties.

In Geriatrics, an additional step excluded hospitals classified in the AHA survey data as surgical hospitals or as specializing in cancer, heart or orthopedics. The basis for the exclusions was that Geriatrics as defined in Best Hospitals represents a broad swath of patients across all service lines. A surgical or specialty hospital treats subsets of those patients whose clinical needs may not be comparable. Similarly, cancer hospitals were excluded from Diabetes & Endocrinology, Orthopedics, Neurology & Neurosurgery, and Pulmonology & Lung Surgery.

We then conducted separate analyses for each specialty to rank the top 50 hospitals in each data-driven specialty and provide overall scores for all evaluated hospitals. *Figure 1* illustrates the eligibility and analysis process for the data-driven specialties, as described in the steps above.

**Figure 1. Eligibility Process, Data-Driven Specialties (Excluding Rehabilitation)**



\* To account for inconsistent reporting to the AHA survey during 2021, data used will incorporate the most recent available measures from FY2021, FY2020, or FY2019.

## Eligibility Requirements for Rehabilitation

No application, data submission or other action is required by inpatient rehabilitation facilities (IRFs) to be considered in the rehabilitation specialty rankings. Except for military and federally owned hospitals, all facilities listed in the AHA annual survey database of U.S. hospitals are automatically considered but, as with other Best Hospitals specialty rankings, must meet a series of eligibility requirements in order to be evaluated in rehabilitation. Eligibility in rehabilitation has two paths for consideration. For the first path to eligibility, facilities are eligible if they appear in the December 2022 public use files for the CMS Care Compare reporting program under the “inpatient rehabilitation facilities” provider type (link: <https://www.medicare.gov/care-compare/?providerType=InpatientRehabilitation>) have an aggregate volume of “Conditions treated” in Stroke, Brain injury (traumatic), Brain disease or condition (non-traumatic), Spinal cord injury (traumatic), Spinal cord disease or condition (non-traumatic), and Nervous system disorder (excluding stroke) of 50 or more in Care Compare. If available from the Uniform Data System for Medical Rehabilitation (UDSMR)<sup>††</sup> or American Medical Rehabilitation Providers Association’s eRehabData<sup>‡‡</sup>, two key registries in rehabilitation, all-payor volumes for these conditions have been used to determine eligibility. Note that for certain conditions a facility’s Medicare volume, as reported in Care Compare, may be substantially lower than its total volume. A total of 1,038 hospitals were eligible in rehabilitation under these criteria.

A second path is also available for facilities that provide acute inpatient rehabilitation services but are not included in the IRF component of Care Compare reporting, including many IRFs located in Maryland (which may opt into but are not required to participate in the IRF Prospective Payment System, known as IRF PPS) and certain specialized long-term care hospitals. Specifically, hospitals that were exempt from the IRF component of Care Compare and had an expert-opinion score of 1% or higher based on the most recent three years of U.S. News national physician surveys in rehabilitation are eligible, regardless of whether they meet all the criteria for the first path for eligibility. An additional 3 hospitals qualified under this path to eligibility. In total, 1,041 hospitals were eligible to be ranked in rehabilitation. Many, but not all, of these hospitals were also eligible in other data-driven specialties.

Being eligible for ranking does not guarantee that a hospital will be ranked. While all eligible hospitals are assigned a score in rehabilitation, only those achieving the highest scores are ranked as Best Hospitals (i.e., 1-50).

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<sup>††</sup> <https://www.udsmr.org/>

<sup>‡‡</sup> <https://web2.erehabdata.com/erehabdata/index.jsp>

In addition, while not being eligible, facilities listed in the AHA survey database as having a primary service code indicating that they are a Rehabilitation hospital (AHA variable: SERV=46), or the AHA service of “physical rehabilitation care” (AHA variable: REHABHOS) and are located in the state of Maryland, or have received accreditation for inpatient rehabilitation from the Commission on Accreditation of Rehabilitation Facilities (CARF) are considered to be rehabilitation facilities and are listed in the directory on the U.S. News website, but have not received scores or a rank. There were 139 such rehabilitation facilities.

## **B. Structure**

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

For the 2023-2024 rankings, the source of most structural elements was the FY2021 AHA Annual Survey Database. Additional components came from external organizations including the National Cancer Institute (NCI), American Nurses Credentialing Center (ANCC), Foundation for the Accreditation of Cellular Therapy (FACT), National Institute on Aging (NIA), National Association of Epilepsy Centers (NAEC), Commission on Accreditation of Rehabilitation Facilities (CARF), National Institutes of Health (NIH), American Hospital Directory, and CMS.

### **AHA Annual Survey**

AHA has surveyed hospitals annually since 1946. The AHA Annual Survey of Hospitals is the most comprehensive and dependable database of information on institutional healthcare,<sup>13</sup> with an average annual response rate of 80%. The database contains hospital-specific data items for more than 6,100 hospitals and healthcare systems. More than 1,300 data fields cover organizational structure, personnel, hospital facilities and services, and financial performance. (The specific mapping of Best Hospitals variables to AHA data elements is shown in *Appendix A*.)

Hospitals that did not respond to the 2021 AHA Annual Survey but responded to the 2020 survey were evaluated using their 2020 responses. Hospitals that did not respond to the AHA survey in either year were evaluated without AHA data, receiving no points for measures in the AHA annual survey.

The following items from the AHA Annual Survey Database provided most of the structural score for the data-driven specialties.

### *Advanced Technologies*

The elements in this measure are reviewed every year in each specialty to remain consistent with the key technologies and advanced care expected from a “best hospital.” Credit was awarded to hospitals that either (1) own or provide a specified service at the hospital or its subsidiaries, (2) provide the service through their health system (in their local community), or (3) provide the service through formal arrangements with local institutions not in their health system.

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

Brief descriptions of the technologies in the 2023-2024 index follow. The definitions are taken largely from the 2021 AHA Annual Survey, expanded as necessary:

- **Ablation of Barrett’s esophagus.** A premalignant condition that can lead to adenocarcinoma of the esophagus. The nonsurgical ablation of premalignant tissue in Barrett’s esophagus is done by the application of thermal energy or light through an endoscope passed from the mouth into the esophagus.
- **Assistive technology center.** A program providing access to specialized hardware and software with adaptations allowing individuals greater independence with mobility, dexterity, or increased communication options.
- **Electrodiagnostic services.** Diagnostic testing services for nerve and muscle function such as nerve conduction studies and needle electromyography.
- **Computer-assisted orthopedic surgery.** A group of orthopedic devices that produce three-dimensional images to assist in surgical procedures.
- **Computed tomography (CT) scanner.** Computed tomographic scanner for head or whole-body scans.
- **Diagnostic radioisotope services.** A procedure that uses radioactive isotopes (radiopharmaceuticals) as tracers to detect abnormal conditions or diseases.
- **Endoscopic retrograde cholangiopancreatography.** A procedure in which a catheter is introduced through an endoscope into the bile and pancreatic ducts.



Injection of contrast material permits detailed x-ray of these structures. The procedure is used diagnostically as well as therapeutically to relieve obstruction or remove stones.

- **Endoscopic ultrasound.** A specially designed endoscope that incorporates an ultrasound transducer to obtain detailed images of organs in the chest and abdomen. The endoscope can be passed through the mouth or anus. Combined with needle biopsy, the procedure can assist in diagnosis of disease and staging of cancer.
- **Full-field digital mammography.** A procedure that combines x-ray generators and tubes used in analog screen-film mammography with a detector plate that converts the x-rays into a digital signal to help diagnose breast cancer.
- **Image-guided radiation therapy.** An automated system that provides high-resolution x-ray images to pinpoint tumor sites, adjusts patient positioning as necessary and completes treatment within the standard treatment time slot, allowing for more effective cancer treatments.
- **Intensity-modulated radiation therapy (IMRT).** A type of radiation therapy used to treat tumors. IMRT manipulates beams of radiation to the shape of the tumor. Beams of varying intensity can be used to radiate the tumor with precision. By using IMRT, physicians can focus on the tumor and avoid exposing healthy tissue to radiation, which causes a variety of negative treatment side effects.
- **Multislice spiral computed tomography (CT).** A procedure that uses x-rays and data processing to produce multiple narrow slices that can be recombined into detailed three-dimensional pictures of the internal anatomy.<sup>§§</sup>
- **PET/CT scanner.** A machine that combines positron emission tomography (PET) and CT capabilities in one device to provide metabolic functional information and images of physical structures in the body for diagnostics and monitoring chemotherapy, radiotherapy, and surgical planning.
- **Prosthetic and orthotic services.** Services providing comprehensive prosthetic and orthotic evaluation, fitting, and training.
- **Robot-assisted walking therapy.** A form of physical therapy that uses a robotic device to assist patients who are relearning how to walk.
- **Robotic surgery.** The use of computer-guided imaging and manipulative devices to perform surgery without the surgeon's direct intervention.

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<sup>§§</sup> The indicator for multislice spiral CT includes both standard (less than 64 slices) and advanced (64 or more slices) versions of the technology. Hospitals can receive credit for either version.

- **Shaped-beam radiation.** A noninvasive procedure that delivers a therapeutic dose of radiation to a defined area of a tumor to shrink or destroy cancerous cells.
- **Single-photon-emission CT.** A nuclear medicine imaging technology that combines radioactive material with CT imaging to highlight blood flow to tissues and organs.
- **Simulated rehabilitation environment.** Rehabilitation focused on retraining functional skills in a contextually appropriate environment (simulated home and community settings) or in a traditional setting (gymnasium) using motor learning principles.
- **Stereotactic radiosurgery.** A radiotherapy modality that delivers a high dosage of radiation to a discrete treatment area in as few as one treatment session. Variants include Gamma knife and Cyberknife.
- **Transplant services.** Includes Medicare-approved organ transplant programs in heart, liver, lung, or kidney transplant recognized by CMS. In addition, hospitals listed as bone marrow and tissue transplant centers by AHA are recognized. Transplant services are specific to the specialty. In the Cancer specialty, transplant services include bone marrow and other tissue transplants; Gastroenterology & GI Surgery includes liver transplant; Cardiology, Heart & Vascular Surgery includes heart transplant and tissue transplant; Pulmonology & Lung Surgery includes lung transplant; Orthopedics includes tissue transplant.

Specialty-specific mixes of key technologies are used in computing the U.S. News scores (see *Section II.G Calculation of the Overall Score for the Data-Driven Specialties*). *Table 4* presents the complete list of key technologies considered for each specialty.

### *Number of Patients*

This measure reflects the volume of medical and surgical discharges in indicated specialty-specific MS-DRG groupings submitted for CMS reimbursement in CY2019, CY2020, and CY2021 combined. The list of MS-DRGs in each specialty is displayed in *Appendix B*. Volume is part of the structural score in all 12 data-driven specialties. Volumes include all cases, including transfers, that appeared in SAF data for the specified MS-DRGs listed in *Appendix B*. Volume data, as described on Page 4, include Medicare fee-for-service patients who were 65 years of age or older; Medicare Advantage managed-care patients are not included in SAF data. Patient selection for outcomes analysis is the same, as described on Page 5. To account for Medicare Advantage patients, reported volumes received an adjustment based on the volume reported in the MedPAR datasets, which include both traditional Medicare and Medicare Advantage patients. An adjustment was calculated for each hospital based on the proportion of Medicare Advantage patients found in the MedPAR

datasets for the three years of data were present in the SAF data. The total SAF volume of hospital care for each specialty was then adjusted by this factor. For two specialties, Obstetrics & Gynecology and Ear, Nose, & Throat, the adjustment was made after combining inpatient and outpatient volume. In doing so, the cap was imposed based on a 2:1 outpatient to inpatient volume ratio in order to depress the influence of extreme outliers. This MA-adjusted volume was then used for the volume measure in each specialty. MedPAR data were not available for a small number of eligible hospitals so, for these hospitals only, we estimated the MA-adjustment based on the location of the hospital—specifically the Medicare Advantage penetration rate for the county where the hospital is located. The numerator for this location-based calculation was the number of fee-for-service discharges meeting the criteria for inclusion in the specialty. The denominator was the proportion of Medicare beneficiaries enrolled in fee-for-service (as opposed to Medicare Advantage) in the county in which the hospital is located. The denominator was calculated by subtracting from 1.0 the CMS Medicare Advantage penetration estimates, expressed as a decimal less than 1.0, for July 2020, the approximate midpoint of the analysis time period.

As a result of the above methods, the volumes reported represent estimates rather than observed volumes of care at each hospital. Note that the new, MedPAR-based adjustment generally had a smaller impact on volume than the location-based method that was used for all hospitals last year. Since most hospitals received the MA-adjustment based on MedPAR for the 2023-2024 rankings, MA-adjusted volumes for most hospitals are somewhat lower than in 2022. Because scoring of volume measures is relative, a decrease in a hospital's MA-adjusted volume from 2022 to 2023 does not necessarily indicate a decrease, and may result in an increase, in the hospital's performance on the measure.

**Table 4. Technologies by Specialty**

<b>Technology</b>	<b>Technology Index</b>	<b>Cancer</b>	<b>Cardiology, Heart &amp; Vascular Surgery****</b>	<b>Diabetes &amp; Endocrinology</b>	<b>Ear, Nose &amp; Throat</b>	<b>Gastroenterology &amp; GI Surgery</b>	<b>Geriatrics</b>	<b>Obstetrics &amp; Gynecology</b>	<b>Neurology &amp; Neurosurgery</b>	<b>Orthopedics</b>	<b>Pulmonology &amp; Lung Surgery</b>	<b>Rehabilitation</b>	<b>Urology</b>
Ablation of Barrett’s esophagus						●							
Assistive technology center												●	
Computer-assisted orthopedic surgery										●			
Computed tomography (CT) scanner												●	
Diagnostic radioisotope services	●			●		●			●		●		●
Electrodiagnostic services												●	
Endoscopic retrograde cholangiopancreatography						●							
Endoscopic ultrasound						●							
Full-field digital mammography	●	●						●					
Image-guided radiation therapy	●	●		●		●		●	●		●		●
Intensity-modulated radiation therapy		●											●
Multislice spiral CT	●		●								●		
PET/CT scanner	●	●	●	●				●	●		●	●	●
Prosthetic and orthotic services												●	
Robotic surgery	●	●	●					●					●
Robot-assisted walking therapy												●	
Shaped-beam radiation		●											
Simulated rehabilitation environment												●	
Single-photon-emission CT	●		●						●				
Stereotactic radiosurgery	●	●		●	●	●		●	●		●		●
Transplant services		●	●			●				●	●		
<b>Total Elements</b>	<b>8</b>	<b>8</b>	<b>6</b>	<b>4</b>	<b>1</b>	<b>7</b>	<b>0</b>	<b>5</b>	<b>5</b>	<b>2</b>	<b>6</b>	<b>7</b>	<b>6</b>

● Included in the measure for the specialty.

\*\*\* Five measures are listed, but hospitals can receive up to six points in Cardiology & Heart Surgery because two points are possible for transplant services—one point for heart transplant services and one point for tissue transplant services.

To reduce the effect of outliers, we imposed a threshold on the volume. If a hospital's MA-adjusted volume is greater than a modified Z-score of 3, it is winsorized and replaced with the volume that corresponds to the minimum observed volume with a modified Z-score greater than 3.

The formula for the modified z-score is  $0.6745(x_i - \tilde{x}) / (1.4826 * MAD)$ , where:

$x_i$ : Hospital's own value

$\tilde{x}$ : The median across all hospitals

MAD: The median absolute deviation across all hospitals

*Table 5* includes the thresholds created for each of the specialties.

**Table 5. Winsorized Volume Thresholds by Specialty**

Specialty	Winsorized Volume Threshold
Cancer	1,837
Cardiology, Heart & Vascular Surgery	12,614
Diabetes & Endocrinology	1,285
Ear, Nose & Throat	1,925
Gastroenterology & GI Surgery	4,666
Geriatrics	28,154
Obstetrics & Gynecology	1,597
Neurology & Neurosurgery	5,647
Orthopedics	3,631
Pulmonology & Lung Surgery	9,843
Urology	483

## Outpatient Volume for Ear, Nose & Throat and Obstetrics & Gynecology

In recognition that a large proportion of care is provided on an outpatient basis, the rankings include certain outpatient procedural cases in the total volume for Ear, Nose & Throat and Obstetrics & Gynecology. To identify outpatient procedures in these specialties, we applied the Ambulatory Potentially Preventable Complications grouper (AM-PPC; 3M Health Information Systems) to Medicare hospital outpatient department claims data for 2019 to 2021. **Table 6** provides the list of Procedure Sub Groups (PSGs) for two specialties, respectively:

**Table 6. List of PSGs for Obstetrics & Gynecology and Ear, Nose & Throat Outpatient Volume**

Obstetrics & Gynecology		Ear, Nose & Throat	
PSG	PSG Description	PSG	PSG Description
44	Female Genital System Procedures	34	Facial and ENT Procedures
50	Hysteroscopy		

### Volume measure for Rehabilitation

For the rehabilitation rankings, volume of care serves as a key indicator of quality. For the volume data, we utilize data from the IRF component of Care Compare (IRF Care Compare) website maintained by CMS. In addition, two key rehabilitation registries (UDSMR<sup>†††</sup> and eRehabData<sup>‡‡‡</sup>) allowed hospitals to opt into public reporting with U.S. News for the rehabilitation rankings through early January 20, 2023<sup>§§§</sup>. The volume measure focuses on the patient volume for certain conditions that are considered complex or difficult to treat in a rehabilitation setting, specifically stroke, traumatic brain injury, and traumatic spinal cord injury; for 2023 three additional volume categories were added from IRF Care Compare and where available from UDS and eRehabData including non-traumatic brain injury, non-traumatic spinal cord injury, and other neurological conditions. For hospitals that participate in public reporting, the rankings compare available volumes for each of the six conditions from CMS and the registries using the largest volume available for scoring purposes. Note that to qualify for use of registry data, a hospital had to appear in IRF Care Compare and meet the minimum volume requirement. For hospitals that have treated one or more cases but less than 11, we treat them as having a value of 10 for purposes of scoring. Each of these volume measures are scored separately relative to all other eligible hospitals

<sup>†††</sup> <https://www.udsmr.org/>

<sup>‡‡‡</sup> <https://web2.erehabdata.com/erehabdata/index.jsp>

<sup>§§§</sup> Note that U.S. News plans to continue working with both registries so that hospitals will be able to opt into public reporting in the future.

and given a weight of 3% for volume of traumatic injury patients or stroke, and 2% for patients with non-traumatic or neurological conditions; the six volume measures together represent a total of 15% of the overall ranking in rehabilitation.

## ***Nurse Staffing***

The nurse staffing index is a ratio that reflects the combined intensity of inpatient and outpatient nursing. The numerator is the total number of on-staff registered nurses (RNs), expressed as full-time equivalents (FTEs); for example, two half-time nurses are the equivalent of one FTE. Only nurses with an RN degree from an approved nursing school and current state registration are considered. The denominator is the adjusted average daily census of patients, a variable created by AHA for U.S. News.

The measure estimates the total amount of care devoted to both inpatients and outpatients by reflecting days of inpatient care plus the estimated volume of outpatients. This index gives more weight to inpatient care while recognizing that outpatient care represents most hospital visits. The components of this index are derived from the AHA database. As with volume, extreme values were similarly adjusted to reduce the influence of wide variation. Value exceeding a modified Z-score of 3 are set to the value corresponding to a modified Z-score of 3. The formula for the modified z-score is  $0.6745(x_i - \tilde{x}) / 1.4826 * MAD$ , where:

$x_i$ : Hospital's own value

$\tilde{x}$ : The median across all hospitals

MAD: The median absolute deviation across all hospitals

The calculation includes a correction for hospitals that provide skilled nursing onsite and report a total that combines both inpatient and skilled nursing. The nursing FTEs associated with the skilled nursing were removed from the numerator and a corrected adjusted average daily census was used for the denominator. The corrected adjusted average daily census values for hospitals affected by this change were calculated by the AHA and provided directly to the project.

To address problems with missing values in the AHA dataset for several hospitals for the FTEN variable, which is the principal nursing FTE variable, the rankings impute missing FTEN values. The project selects hospitals that do not have extreme nurse staffing ratios (i.e., are not outliers) and imputes the value of FTEN using the current values of the following variables in the reference population: FTEN (Full time equivalent registered nurses reported), FTERN (Full time

equivalent registered nurses estimated), ADJADC (Adjusted Average Daily Census) and BDTOT (total hospital beds set up and staffed).

Note that the nurse staffing measure is not used in rehabilitation as there is no adequate measure of nurse staffing that can be specifically applied to rehabilitation facilities from the AHA data at the present time.

### *Trauma Center*

In a past U.S. News survey of board-certified physicians, respondents ranked the presence of an emergency room and status as a Level 1 or Level 2 trauma care provider high on a list of hospital quality indicators. Physicians in nine specialties ranked trauma center status as one of the top five indicators of quality. Their recommendations and analyses showing a strong relationship with other quality factors supported inclusion of a trauma measure in Ear, Nose & Throat, Gastroenterology & GI Surgery, Cardiology, Heart & Vascular Surgery, Neurology & Neurosurgery, Orthopedics, Pulmonology & Lung Surgery, and Urology.

Two variables in the AHA Annual Survey Database provide the required data. Both must be answered. One variable indicates the presence of a state-certified trauma center in the hospital (as opposed to trauma services provided only as part of a health system or joint venture). Beginning with the 2023-2024 rankings, U.S. News piloted the use of public records to verify AHA's data for this variable for certain hospitals in two populous states, California and New York; hospitals did not receive credit in several cases where U.S. News determined the trauma center was associated with a different hospital's license. The second variable indicates trauma center level. The trauma center indicator is dichotomous. To receive credit of 1 point, a hospital must be a Level 1 or Level 2 trauma center\*\*\*\*. The AHA defines Level 1 as "a regional resource trauma center, which is capable of providing total care for every aspect of injury and plays a leadership role in trauma research and education."<sup>13</sup> Level 2 is "a community trauma center, which is capable of providing trauma care to all but the most severely injured patients who require highly specialized care."<sup>13</sup>

### *Patient Services*

Patient services encompass major conveniences for patients. Among others, they include translators, advanced or especially sophisticated care, and services either considered clinically essential in a comprehensive, high-quality hospital, such as cardiac rehabilitation, or reflective of

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\*\*\*\* The highest two levels of this designation are equivalent to the top two levels of the American College of Surgeons trauma center certification and can be used by hospitals in states that do not certify trauma centers.



forward thinking and sensitivity to community needs, such as genetic testing or counseling. All items are taken from the AHA Annual Survey.

Brief descriptions of patient services included in the index follow. The definitions are taken from the AHA Annual Survey of Hospitals (and expanded as necessary).

- **Alzheimer's center.** A facility that cares for individuals with Alzheimer's disease and the patients' families through an integrated program of clinical services, research and education. As with all items in this survey, each hospital determines whether the service is offered, based on the AHA description. This index differs from designation as an NIA Alzheimer's center, which is a higher-order designation and is treated as a separate structural measure in Geriatrics and in Neurology & Neurosurgery.
- **Arthritis treatment center.** A center specifically equipped and staffed for diagnosing and treating arthritis and other joint disorders.
- **Cardiac rehabilitation.** A medically supervised program to help heart patients recover quickly and improve their overall physical and mental functioning in order to reduce risk of another cardiac event or to keep a current heart condition from worsening.
- **Cardiac intensive care unit.** The unit is staffed with specially trained physicians and nursing personnel with specialty monitoring and support/treatment equipment for patients who, because of heart seizure, open-heart surgery, or other life-threatening conditions, require intensified, comprehensive observation and care.
- **Case management.** A system of assessment, treatment planning, referral and follow-up that ensures the provision of comprehensive and continuous services and the coordination of payment and reimbursement for care.
- **Employment support services.** Services designed to support individuals with significant disabilities to seek and maintain employment.
- **Enabling services.** A program that is designed to help the patient access health care services by offering any of the following: transportation services and/or referrals to local social services agencies.
- **Fertility clinic.** A specialized program set in an infertility center that provides counseling and education, as well as advanced reproductive techniques.
- **Genetic testing/counseling.** A service equipped with adequate laboratory facilities and directed by a qualified physician to advise parents and prospective parents on potential problems in cases of genetic defects.

- **Health research.** Organized hospital research program in any of the following areas: basic research, clinical research, community health research, and/or research on innovative health care delivery.
- **Hemodialysis.** Provision of equipment and personnel for the treatment of renal insufficiency on an inpatient or outpatient basis.
- **Hospice.** A program that provides care (including pain relief) and supportive services for the terminally ill and their families.
- **Infection isolation room.** A single-occupancy room designed to minimize the possibility of infectious transmission, typically through the use of controlled ventilation, air pressure, and filtration.
- **Neurological services.** Services provided by the hospital dealing with the operative and nonoperative management of disorders of the central, peripheral, and autonomic nervous systems.
- **Occupational health services.** Includes services designed to protect the safety of employees from hazards in the work environment.
- **Pain-management program.** A program that provides specialized care, medications or therapies for the management of acute or chronic pain.
- **Palliative care.** A program that provides specially trained physicians and other clinicians to relieve acute or chronic pain or to control symptoms of illness.
- **Patient-controlled analgesia.** A system that allows the patient to control intravenously administered pain medicine.
- **Patient education center.** Written goals and objectives for the patient and/or family related to therapeutic regimens, medical procedures, and selfcare.
- **Patient representative services.** Organized hospital services providing personnel through whom patients and staff can seek solutions to institutional problems affecting the delivery of high-quality care and services.
- **Physical rehabilitation outpatient services.** Program providing medical, health-related, therapy, social, and/or vocational services to help people with disabilities attain or retain their maximum functional capacity.
- **Psychiatric services - psychiatric consultation-liaison services.** Provides organized psychiatric consultation/liaison services to nonpsychiatric hospital staff and/or departments on psychological aspects of medical care that may be generic or specific to individual patients.

- **Psychiatry–geriatric service.** A psychiatric service that specializes in the diagnosis and treatment of geriatric medical patients.
- **Social work services.** Organized services that are properly directed and sufficiently staffed by qualified individuals who provide assistance and counseling to patients and their families in dealing with social, emotional, and environmental problems associated with illness or disability, often in the context of financial or discharge planning coordination.
- **Support groups.** A hospital sponsored program that allows a group of individuals with common experiences or issues who meet periodically to share experiences, problems, and solutions in order to support each other.
- **Translators.** A service provided by the hospital to assist patients who do not speak English.
- **Wound-management services.** Services for patients with chronic and non-healing wounds that often result from diabetes, poor circulation, sitting or reclining improperly, and immunocompromising conditions. The goals are to progress chronic wounds through stages of healing, reduce and eliminate infections, increase physical function to minimize complications from current wounds, and prevent future chronic wounds. Services are provided on an inpatient or outpatient basis depending on the intensity of service needed.

From seven to sixteen services are included in each specialty. Hospitals receive 1 point for each specified service provided on- or off-site either (1) by the hospital or its subsidiaries, (2) by the hospital’s health system in the local community, or (3) by another institution in the local community through formal arrangement or joint venture. *Table 7* displays patient services by specialty.

**Table 7. Patient Services by Specialty**

Service	Cancer	Cardiology, Heart & Vascular Surgery	Diabetes & Endocrinology	Ear, Nose & Throat	Gastroenterology & GI Surgery	Geriatrics	Obstetrics & Gynecology	Neurology & Neurosurgery	Orthopedics	Pulmonology & Lung Surgery	Rehabilitation	Urology
Alzheimer's center						•		•				
Arthritis treatment center						•			•			
Cardiac rehabilitation		•										
Cardiac intensive care unit		•										
Case management											•	
Employment support services											•	
Enabling services											•	
Fertility clinic							•					•
Genetic testing/counseling	•		•	•	•		•	•		•		•
Health research											•	
Hemodialysis											•	
Hospice	•	•	•	•	•	•	•	•	•	•		•
Infection isolation room	•		•	•	•		•	•		•		•
Neurological services											•	
Occupational health services											•	
Pain-management program	•	•	•	•	•	•	•	•	•	•	•	•
Palliative care	•	•	•	•	•	•	•	•	•	•		•
Patient-controlled analgesia	•	•	•	•	•	•	•	•	•	•		•
Patient education center											•	
Patient representative services											•	
Physical rehabilitation outpatient services											•	
Psychiatry/geriatric service						•						
Psychiatric services - psychiatric consultation-liaison services											•	
Social work services											•	
Support groups											•	
Translators	•	•	•	•	•	•	•	•	•	•	•	•
Wound-management services	•	•	•	•	•	•	•	•	•	•	•	•
<b>Total Elements</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>7</b>	<b>8</b>	<b>16</b>	<b>9</b>

• Included in the index for the specialty.

## *ICU Specialists*

*ICU specialists* are board-certified physicians with subspecialty or fellowship training in critical-care medicine. They specialize in managing critically ill patients in hospital intensive care units (ICUs). Recent research indicates that better outcomes are associated with the presence of ICU specialists.<sup>14,15</sup> The rankings award 1 point to hospitals with at least one ICU specialist FTE, whether on staff or through another arrangement as long as at least one ICU specialist serves in an adult-focused intensive care unit setting within the hospital. Previously hospitals had to have at least one FTE on staff ICU specialist. Credit was determined from the FY2021 AHA Annual Survey.

## **External Organizations**

The following describes sources and organizations other than AHA and CMS that provided data for additional structural measures.

### *NCI-Designated Cancer Center*

The National Cancer Institute (NCI), an arm of the National Institutes of Health, is the principal federal agency tasked with conducting and sponsoring cancer research and training and promoting research and standards of care by various means, including certification as an NCI-designated cancer center. Such a center is committed to advancing cancer research and, ultimately, reducing cancer incidence and increasing the effectiveness of treatment.<sup>12</sup>

NCI-designated centers have three classification levels. The lowest is *basic cancer center*, denoting a facility that conducts a high volume of advanced federally funded laboratory research. Credit is not awarded for this designation. A *clinical cancer center*, the second level, adds clinical (“bench-to-bedside”) research. *Comprehensive cancer center*, the highest level, adds prevention research, community outreach, and service activities.<sup>16</sup>

Hospitals designated as NCI clinical or comprehensive cancer centers (and their official consortium partners) as of February 2, 2023, were awarded 1 point. Hospitals designated “*basic cancer centers*” did not receive credit. NCI updates the list throughout the year. The current list is at <http://cancercenters.cancer.gov/Center/CCList>.

### *Nurse Magnet Status*

The Nurse Magnet measure is a formal designation by the Magnet Recognition Program<sup>®</sup>. The Magnet Recognition Program was developed by the ANCC to recognize health care organizations that meet certain quality indicators on specific standards of nursing excellence. The

ANCC updates the list of Magnet-recognized facilities throughout the year as organizations apply for designation and re-designation status. U.S. News bases credit for this measure on Magnet Recognition as of December 13, 2023. U.S. News is not responsible for any omissions in the data made available by ANCC. The current list of Magnet-recognized organizations is shown at <https://www.nursingworld.org/organizational-programs/magnet/find-a-magnet-facility/>.

Hospitals received 1 point for being recognized as a Nurse Magnet hospital. For hospitals that are part of a special merger<sup>††††</sup> or a multi-campus hospital, the primary hospital (usually the larger of two or more general acute-care hospitals) is required to have Magnet Recognition status for the combination hospital to receive 1 point.

### *NAEC-Designated Epilepsy Center*

One point was awarded to hospitals designated by NAEC as Level 4 epilepsy centers as of April 3, 2023. A Level 4 epilepsy center serves as a regional or national referral facility. These centers provide more complex forms of intensive neurodiagnostic monitoring, as well as more extensive medical, neuropsychological, and psychosocial treatment. Level 4 centers also offer a complete evaluation for epilepsy; surgery, including intracranial electrodes; and a broad range of surgical procedures for epilepsy.<sup>17</sup> NAEC updates its list of hospitals throughout the year. The current list is shown at <http://www.naec-epilepsy.org/find.htm>.

### *NIA-Designated Alzheimer's Center*

Evaluation and certification are conducted by NIA, an arm of NIH that translates research advances into improved diagnosis and care of Alzheimer's disease and conducts research on prevention and cures. Recognition means that a hospital has received significant funding for and conducts research on Alzheimer's disease as well as providing a high level of care for Alzheimer's patients. Hospitals designated as an NIA Alzheimer's center as of January 12, 2023, received 1 point. Hospitals listed as affiliated centers did not receive credit. The current list of NIA Alzheimer's centers can be accessed at <https://www.nia.nih.gov/health/alzheimers-disease-research-centers>.

### *FACT Accreditation*

This designation indicates that as of January 27, 2023, a hospital met standards set by FACT for transplanting bone marrow or other cellular tissue to treat cancer. Two points were given if

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<sup>††††</sup> In a special merger, two separate hospitals operate as one and their data are combined for analysis. Brigham and Women's Hospital and Dana-Farber Cancer Center are an example in Cancer. Specialty or secondary hospitals that are combined with the primary hospital are noted on the U.S. News website for that hospital.

accreditation was for *allogeneic transplants*, involving cells donated by another person (allowing for a greater number and more kinds of cell transplants), regardless of other accreditations. If a hospital did not have allogeneic transplant accreditation, but they did have accreditation for either *autologous transplants*, in which a patient's own cells are removed and then returned following radiation therapy, or for *immune effector cellular therapy (IECT)*, they received one point. The current list of FACT-accredited hospitals can be accessed at [www.factwebsite.org](http://www.factwebsite.org).

## **CARF Accreditation**

Accreditation from the Commission on Accreditation of Rehabilitation Facilities (CARF International) designates a center as meeting standards of excellence in rehabilitation care. Data was obtained from CARF International on January 27, 2023. The current list of CARF accredited hospitals can be accessed at <http://www.carf.org/providerSearch.aspx>. In the rehabilitation specialty, this accreditation is worth a total of 2.5%. Additionally, the U.S. News website notes which hospitals had certain specialty certifications from CARF International.

## **Rehabilitation Model Systems**

Designation as a Model Systems in Rehabilitation by the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR; see <https://msktrc.org/>) indicates that a center has received federal funding to advance rehabilitation care through innovative research. Designations are available in the areas of Spinal Cord Injury (SCI), Burns (BMS), and Traumatic Brain Injury Model Systems (TBIMS). Facilities received credit if they had one or more model systems designations awarded by NIDILRR. Data for this element was obtained from NIDILRR on February 6, 2023. The model systems designation is worth a total of 2.5% of the ranking. Additionally, all hospitals with model systems designation received the 2.5% associated with CARF accreditation, whether or not they were accredited by CARF International (for a total of 5% of their score in the rehabilitation specialty).

## **Normalization**

All structural measure values were normalized prior to weighting. Normalization transforms index values into a distribution between 0 and 1 based on the range of possible values for a given measure. Normalizations were done separately for each specialty. Equation (1) is the formula for normalization:

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

where

$X_i$  = the value for measure  $i$ ,

$Maximum_i$  = the highest possible value for measure  $i$  and

$Minimum_i$  = the lowest possible value for measure  $i$ .

For example, the Advanced Technologies index for Cancer is worth a maximum of 8 points. If a given hospital received 5 out of 8 points, the normalized value for the Advanced Technologies index in Cancer would be  $(5-0)/(8-0) = 0.63$ . For all structural measures, other than Number of Patients and Nurse Staffing, the lowest *possible* value is 0 even when the lowest *observed* value is greater than 0. For Number of Patients and Nurse Staffing, the lowest possible value was made equal to the lowest observed value and the highest possible value was made equal to the highest observed value.

## **Weighting**

In 2012, we convened an expert panel to determine appropriate weights for each of the measures. The evaluation was done both across specialties for consistency in weighting and within specialties to identify key measures of quality in a particular specialty. Overall, weights were determined based on the importance of each measure in defining the overall structural attributes of care within hospitals. Weights for Rehabilitation, a specialty that was not discussed by the expert panel, were assigned by the project team after considering input from diverse stakeholders. **Table 8** shows the weight for each of the measures that make up the structural component of the rankings, by specialty. These weighted scores are used in the calculation of the overall raw score in **Section II.G Calculation of the Overall Score for the Data-Driven Specialties**. For all specialties, the sum of the weights is 35%, the overall weight for the structural component of the overall score.



**Table 8. Structural Elements and Percentages (%) of Total Score by Specialty**

Item	Cancer	Cardiology, Heart & Vascular Surgery	Diabetes & Endocrinology	Ear, Nose & Throat	Gastroenterology & GI Surgery	Geriatrics	Obstetrics & Gynecology	Neurology & Neurosurgery	Orthopedics	Pulmonology & Lung Surgery	Rehabilitation	Urology
Advanced technologies	5	5.83	6.18	5.83	5.83		6.18	4.77	5.83	5.83	7.5	5.83
CARF accreditation*											2.5	
FACT accreditation	3.33											
ICU specialists	3.33	3.89	4.12	3.89	3.89	4.12	4.12	3.18	3.89	3.89		3.89
NAEC-designated epilepsy center								3.18				
NCI-designated cancer center	3.33											
NIA-designated Alzheimer's center						6.18		3.18				
Number of patients	6.67	7.78	8.24	7.78	7.78	8.24	8.24	6.36	7.78	7.78	15	7.78
Nurse Magnet status	3.33	3.89	4.12	3.89	3.89	4.12	4.12	3.18	3.89	3.89		3.89
Nurse staffing	6.67	7.78	8.24	7.78	7.78	8.24	8.24	6.36	7.78	7.78		7.78
Patient services	3.33	3.89	4.12	3.89	3.89	4.12	4.12	3.18	3.89	3.89	7.5	3.83
Rehabilitation model systems*											2.5	
Trauma center		1.94		1.94	1.94			1.59	1.94	1.94		1.94

\* All hospitals with model systems designation received the 2.5% associated with CARF accreditation, whether or not they were accredited by CARF International (for a total of 5% of their score in the rehabilitation specialty).

Note: Percentages may not sum to 35 due to rounding.

## C. Outcomes

The correlation between quality of care and risk-adjusted outcomes is self-evident and supported by the literature.<sup>18-32</sup> Outcomes, which include specialty-specific, risk-adjusted mortality rates and rates of discharge to home, are worth 45% of the overall score in most specialties. Some specialties also include a measure of complications following outpatient surgeries and other outpatient procedures. Rehabilitation includes a unique set of outcome measures, described below.

When comparing outcomes such as mortality between hospitals, adjusting for differences in the patients treated at each hospital is critical. These adjustments need to take into account not only the principal condition for which the patient is being treated but also other comorbidities and characteristics that may affect outcomes. For instance, a hospital with a 35% death rate might be superior to a hospital with a 10% death rate, if most of the patients at the first hospital are of high risk (i.e., expected to die) and most of the patients at the second hospital are of fairly low risk.

To address the differences in risk, we used multilevel logistic regression models to adjust for differences in case mix between hospitals. Multilevel models are a form of regression that allocates variance between variables on two or more levels. We used the empirical Bayes estimate of the hospital intercept as an estimate of each hospital's value for a given outcome. Multilevel modeling accounts for clustering of patient observations within hospitals and allows for more precise evaluation of hospitals with lower patient volume and fewer outcomes.

We selected covariates for inclusion in risk-adjustment models based on the literature, discussions with clinicians in relevant specialties and experience. The model indicates that an unbiased estimate of the effect of treatment at a given hospital as compared to a hospital selected at random from among those eligible for ranking with a specialty, requires adjustment for age, sex, Elixhauser comorbidities,<sup>33</sup> socioeconomic status (SES), and year of admission. We have controlled for severity of index condition via restriction of cases consistent with the subset of DRGs used by the project as described at the end of this section and **Appendix B**.

For the analyses we used pooled SAF data from CY2019, CY2020, and CY2021, the latest available for analysis. SAF data are derived from reimbursement claims submitted by hospitals to Medicare. The SAF data files contain information on all fee-for-service Medicare patients' diagnoses, procedures, length of stay in the hospital and discharge status. Only patients 65 years of age or older at the time of care were included in the analyses.

The SAF data include the CMS DRG assigned to each case for Medicare payment. Each SAF data record contains information on the patient's diagnosis, surgery (or other medical procedure), age, sex, and discharge destination.<sup>34</sup> DRGs classify the *International Classification of Diseases, Tenth Revision* (ICD-10) diagnosis codes into more meaningful patient groups based on clinical and cost similarity.<sup>36</sup>

Because MS-DRGs are relatively homogeneous groups of diagnoses and procedures, we use MS-DRGs as the basic unit for defining cases to be included in each specialty's outcome and volume measures (see **Appendix B** for the MS-DRGs used). MS-DRGs that represent challenging and/or

critical procedures were preferentially included. The process used to identify MS-DRGs is outlined below.###

1. MS-DRGs for very-low-intensity cases were excluded.
2. MS-DRGs that generally do not apply to a Medicare or elderly population were excluded.
3. Excluded and included MS-DRGs were evaluated on their embedded diagnoses.
4. Excluded and included categorizations were refined based on within-MS-DRG variation in diagnostic complexity.
5. MS-DRGs not assigned to a specific specialty were evaluated to determine whether they should be categorized more specifically.
6. MS-DRGs were attributed to multiple specialties if patients assigned to the DRGs are commonly treated by physicians in multiple specialties, or specific diagnoses or procedures were assigned to specific specialties based on principal diagnosis or procedures.
7. A final evaluation for clinical consistency was performed.

## **Outcome Methodology**

Changes over the years have addressed specific issues in calculating mortality. These changes have addressed either specialty-specific issues (such as defining a specific population to use in Geriatrics as opposed to using all cases) or more general issues that can affect mortality outcomes (such as excluding transfers). Brief descriptions of these special considerations are provided below.

**1. Redefining the Geriatrics patient population.** Rankings in Geriatrics were dropped in 2006 but reintroduced in 2007, using a new approach to identify the target population and account for their mortality rates. Rather than using a small subset of MS-DRGs typical of geriatric patients, we elected to focus on how well hospitals treat older patients across a wide range of MS-DRGs. The Geriatrics specialty rankings now include all MS-DRGs generally appropriate to a Medicare or elderly population, but for the outcomes analysis only patients who are at least 75 years of age are included. The basic outcomes analyses of the data for this group followed the same procedures as for the other data-driven specialties.

**2. Excluding transfers from mortality calculations.** Since 2007, all patient transfers into the hospital have been excluded from mortality calculations. This was done to help avoid mortality

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### For a more detailed review of these procedures, see the 2005 Best Hospitals Ranking Methodology Report at [www.rti.org/besthospitals](http://www.rti.org/besthospitals).

rates that might be inflated by transfers of severely ill patients to tertiary care hospitals. Research has shown that because of their location, some tertiary care hospitals are particularly vulnerable to “dumping.”<sup>37</sup> This change means that patients legitimately transferred for appropriate care are lost to analysis, but it is more important to ensure that each hospital’s mortality numbers are not affected by transfers of very sick patients from hospitals unable to properly care for them. Transfers were identified using the claim source of inpatient admission variable and the patient discharge status code on the inpatient SAF data files. The variable value of “4” (Transfer from hospital (Different Facility) where he or she was an inpatient) was used to identify explicit inbound transfers, except in instances where the record from the preceding hospitalization was inconsistent with a transfer. Additionally, patients who are discharged and then admitted to a different hospital within one day were considered transfers.

**3. Standardizing on 30-day mortality.** Prior to 2007, mortality in the Best Hospitals methodology was defined as the rate of inpatient deaths (i.e., those occurring from admission to discharge). As inpatient hospital length of stay has decreased, inpatient mortality has generally decreased as well. Mortality over longer periods post-discharge, however, has not declined markedly.<sup>38</sup> Quality of care in the inpatient setting can affect patients’ health and functional status for many weeks following discharge. AHRQ states in *Refinements of the HCUP Quality Indicators Technical Summary* (2001) that “without 30-day mortality data (ascertained from death certificates), hospitals that have short lengths of stay may appear to have better patient outcomes than other hospitals with equivalent 30-day mortality.”<sup>39</sup>

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

To address these concerns, the 2007 rankings introduced 30-day mortality (i.e., 30 days post admission) for all specialties except Cancer. This exception was made because of concern that 30-day mortality might penalize hospitals that see large numbers of cancer patients at the end of life—thus artificially inflating their mortality numbers. After further review of available data and research, however, we concluded that 30-day mortality should be consistent. Starting in 2008, 30-day mortality has been used for all data-driven specialties.<sup>§§§§</sup>

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§§§§ Note that the mortality methodology does not exclude palliative care (V66.5) or hospice cases due to significant inconsistencies in the way in which palliative and hospice care services are documented, defined, and coded across providers. The analyses rely on the MS-DRG system to account for patient severity and risk of mortality in the SAF data rather than removing these cases from analyses.

**4. Adjustment for socioeconomic status and risk.** Starting in the 2017-18 rankings, a new adjustment was included at the patient level for Medicare and Medicaid dual eligibility. The dual-eligible flag is set to either 0 (not present) or 1 (present) for each case entering the risk-adjusted mortality equation. This was done to address known differences in morbidity and mortality with hospital patients associated with lower socioeconomic status (SES); dual-eligibility, or more specifically eligibility for Medicaid, is being used in this case to represent lower SES. The impact of the change was small and results in scores that better represent patient survival in the hospitals evaluated.

**5. Update to the calculation of Survival and Discharge to Home.** Starting with the 2019-2020 rankings, the project adopted a new risk-adjustment approach for the Survival and Discharge to Home outcomes that moves away from the observed to expected ratios (OER) to ‘random effect’ (RE) models, which can be thought of as a hospital level off-set. They represent the risk difference between a hospital and all hospitals in a given specialty, discounted by the reliability of that difference. The reliability is based on the volume of cases in a hospital, which means that if a hospital has 500 cases and 0 deaths, they would have a better RE, and thus better mortality score, than a hospital with 50 cases and 0 deaths; previously, these hospitals would have had the same OER of 0. The rationale for this is that in hospitals where there are more observations, there is higher certainty that the observed results are real and not due to statistical noise. The inclusion of information on certainty is the most important difference between the OER and the RE. A list and brief description of the covariates used in the risk-adjustment model is located in *Table 9*.

To mitigate the impact of COVID-19-pandemic-associated disruptions on outcome measures, several exclusions were applied to visits occurring on or after March 1, 2020. First, visits in which a patient had a diagnosis of COVID-19 were excluded. Second, all visits occurring in March 2020 were excluded. Third, for each hospital, visits that occurred in April through December of 2020 were excluded if they occurred during a month in which the hospital’s COVID-19 hospitalization rate exceeded the national average for that month or exceeded 15%, whichever was less. Any visits with a diagnosis of COVID-19 in 2021 (and onward) are not impacted by these exclusions. Instead, they are risk-adjusted in the outcomes statistical models. We do not exclude any visits with Covid-19 diagnosis when computing the volume.

**Table 9. Covariates used for Risk-Adjustment of RE Models**

Risk-adjustment variables	Description
Patient age at admission	Patient age as a linear variable
DRG roll-up	Rolled up DRG groups that include the variations w MCC, w CC, and w/o CC/MCC for medical and surgical treatment covered by the project (as shown in the tables in <b>Appendix B</b> ).
Sex	Male or female
Year of hospital admission	Quality of care tends to improve over time. This means the risk of adverse outcomes is less year to year. For that reason, year of admission is included as a risk factor.
Elixhauser comorbidities	We controlled for the 38 comorbidities identified by criteria from the Elixhauser Comorbidity Software Refined for ICD-10-CM (v2022.1) as being predictive of healthcare outcomes.
Medicare status code	The reason or reasons why the patient is eligible for Medicare: age, or age plus end-stage renal failure. This is a proxy for comorbidities.
Socioeconomic status	Patients with lower incomes are typically sicker when they arrive at the hospital and may face more challenges in obtaining or managing their care after they are discharged. This can affect their risk of death, readmission and complications. When hospitals differ by the socioeconomic status of their patients, this can create bias in comparing outcomes. Our risk models include “dual eligibility” as a measure of socioeconomic background. Patients who are eligible for both Medicare and Medicaid are treated as a separate risk group.
COVID-19 diagnosis	Patients diagnosed with COVID-19 in 2021 and onward

The accuracy of risk-adjustment models is measured by two statistics, the C-statistic and the Hosmer-Lemeshow goodness of fit statistic. The C-statistic estimates the probability that if one subject who experienced an outcome (death, for example) and another who did not are drawn randomly from the data, the model will assign a higher probability of death to the person who died. When interpreting the results of a C-statistic calculation, a value of .50 indicates the model has no better than random chance at predicting the outcome. A C-statistic in the .60-.69 range indicates limited discrimination, .70-.79 indicates acceptable discrimination and above .80 indicates good discrimination.

As shown in **Table 10**, the C-statistic for risk-adjustment models implemented using clinical data range from approximately .75-.92. The new model for some of the outcome measures—Survival and Discharge to Home—were generally of similar predictive quality as those based on clinical data. The Hosmer-Lemeshow test assesses model goodness of fit within subgroups of the data and is generally not considered informative for samples over 25,000. We used a procedure designed to evaluate Hosmer-Lemeshow fit in large samples, in which multiple Hosmer-Lemeshow

tests are conducted on small samples of the data. A Hosmer-Lemeshow test results in a p-value, which below 0.05 indicates a bad fit; the closer to 1 the mean p-value is across all of the sample Hosmer-Lemeshow tests, the better fit. Overall, the results of the analyses show that the models have acceptable to good discrimination for all of the specialties.

**Table 10. Predictive Accuracy of Risk-adjustment Models**

Specialty	Survival		Discharge to home	
	C-statistic	Mean (min, max) of Large-sample Hosmer-Lemeshow Tests	C-statistic	Mean (min, max) of Large-sample Hosmer-Lemeshow Tests
Cancer	0.788	0.41 (0.05,0.90)	0.799	0.33 (0.00, 0.79)
Cardiology, Heart & Vascular Surgery	0.775	0.58 (0.05,0.92)	0.760	0.49 (0.18,0.99)
Diabetes & Endocrinology	0.797	0.38 (0.01,0.87)	0.752	0.52 (0.05, 0.89)
Ear, Nose & Throat	0.848	0.72 (0.53, 0.96)	0.815	0.38 (0.04,0.85)
Gastroenterology & GI Surgery	0.806	0.40 (0.09, 0.95)	0.768	0.47 (0.00,0.91)
Geriatrics	0.787	0.23 (0.01,0.64)	0.779	0.28 (0.03,0.50)
Neurology & Neurosurgery	0.799	0.62 (0.18,0.99)	0.792	0.38 (0.01,0.92)
Obstetrics & Gynecology	0.916	0.55 (0.17,0.88)	0.846	0.36 (0.01,0.78)
Orthopedics	0.861	0.67 (0.01,0.95)	0.880	0.43 (0.01,0.99)
Pulmonology & Lung Surgery	0.777	0.41 (0.00,0.99)	0.773	0.33 (0.03,0.89)
Urology	0.862	0.54 (0.15,0.84)	0.825	0.42 (0.02,0.84)

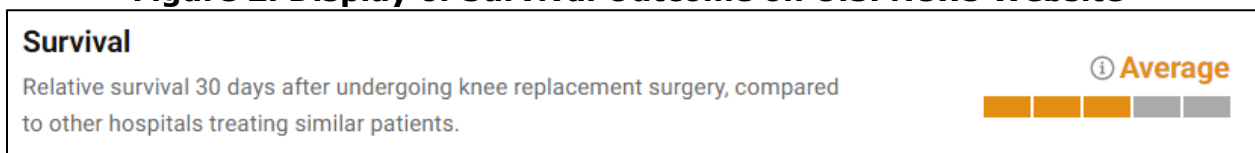
Additional analyses were conducted to evaluate the validity of the Best Hospitals rankings, as well as the component measures that are used to produce the rankings. In the Cardiology, Heart & Vascular Surgery specialty, we evaluated ranking differences between hospitals with heart transplant programs against those without. We performed similar analyses in the Cancer specialty (for bone marrow transplant centers) and Gastroenterology & GI surgery (liver transplant). We also looked at how hospitals with specialized AHA service codes performed on outcomes in related specialties (e.g., service code 41-cancer for the cancer specialty, service code 47-orthopedic for the orthopedics specialty, and service codes 13 and 42- surgical and heart for the cardiac specialty). Lastly, we performed similar analyses to understand whether hospitals operating trauma centers attained higher ranks in each specialty. In each case, the results of the risk adjusted mortality and discharge to home scores were consistent with expectations.

## Survival Score

The rankings present mortality results through the use of a survival score. Survival scores are used to convey performance on outcome measures so that users of the rankings can quickly see how hospitals perform relative to each other. As described below, the survival (and discharge) scores represent a range of performance rather than a precise point estimate of performance based on the RE. This is used for display purposes in the rankings only.

We published survival scores as integer values ranging from 1 to 5. See an example of a survival score of 3, indicating performance not statistically different from expected, in *Error! Reference source not found.* **Figure 2.**

**Figure 2. Display of Survival Outcome on U.S. News Website**



Our approach to determining each hospital's survival score falls under the general rubric of statistical significance testing. The cutoffs are different for each hospital. The survival score is reflective of a hospital's estimated risk-adjusted value (RE) on the outcome compared to other hospitals, as well as its Medicare claims volume and the incidence of that outcome. We compare each hospital's risk-adjusted outcome value to a normal distribution, taking into account precision as well as how a hospital compares to other hospitals—the greater a hospital's volume, the more certain we are of its estimated outcome value. For rare outcomes, such as death in Orthopedics, relatively few hospitals will have a rate that would designate it as above or below average. It is important to keep in mind that the bands displayed provide a heuristic for the RE, which is the underlying continuous metric that is used in calculating the rankings. Consequently, two hospitals with the same displayed survival score—but different underlying REs—may receive different rankings even if they have identical data on all other measures.

The display scores place hospitals into one of five scores reflecting their performance and our level of certainty about it. This takes into account the adjusted RE values along with measures of variability in the population of eligible hospitals to assign one of 5 groups based on how much they deviate from the mean. The center of the distribution, a score of 3, is defined as being less than 75% confidence in difference from the mean. A score of 4 represents hospitals that are better than average with 75% confidence and a score of 5 represents hospitals that are better than average with 90% confidence. Scores of 1 and 2 are the inverse of 5 and 4, respectively. Given that ranked



hospitals are a subset of all hospitals who generally perform better on patient outcomes, there will be more ranked hospitals with scores of 4 and 5.

## **Discharge to Home Score**

The discharge to home measure assesses how well a hospital does at managing to discharge patients to home rather than sending them on to another acute or post-acute care setting following hospitalization. It is an outcome measure, not a measure of process. In other words, discharging patients with certain functional impairments to institutional post-acute care is appropriate from a process perspective. But in general, patients who are well enough to be discharged home have achieved better functional outcomes than patients who require discharge to an institutional care setting.

The denominator for this measure includes only patients who have been discharged following a qualifying inpatient admission; visits with inbound transfer status are excluded from the measure. The discharge status codes used in this measure come from the claims evaluated in the CMS SAF data. Hospitalizations with discharge status codes of 07 (left against medical advice or discontinued care), 20 (expired, did not recover - Christian Science), 21 (discharged to court/law enforcement), 30 (still a patient), 40 (expired at home, hospice claim), 41 (expired in facility, hospice claim), 42 (expired place unknown, hospice claim), 50 (home hospice), 62 (discharged/transferred to an IRF including distinct parts units of a hospital), or 87 (discharged to court/law enforcement with planned readmission) are excluded from the numerator and denominator, as are hospitalizations with a missing or invalid discharge status code and those with admission source code 8 (admitted upon direction of a court or law enforcement) or 5 (admitted from a nursing facility). Similarly, visits that were determined to have been admissions from a SNF, because in Medicare SNF claims data, the patient was observed in a SNF immediately prior to being admitted to a hospital, were excluded.

Discharge codes 01 (home/self-care), 06 (home with care of organized home health service organization), 81 (home/selfcare with planned readmission), and 86 (home with care of organized home health service organization with planned readmission) are included as a successful discharge to home. Discharge to a location other than home is indicated by one of the following patient discharge status codes: 02, 03, 04, 05, 09, 43, 51, 61, 63, 64, 65, 66, 69, 70, 82, 83, 84, 85, 88, 89, 90, 91, 92, 93, 94, 95.

Similar to the survival score, the discharge to home score was determined by statistical significance testing and is expressed as an integer from 1 to 5.

## Prevention of Outpatient Complications for Orthopedics and Urology

This measure evaluates the ability of hospitals to prevent complications related to procedures conducted on an outpatient basis. In some surgical specialties, outpatient procedures have long been routine. In others, surgeries that historically involved admitting patients to an inpatient setting are now increasingly performed on an outpatient basis. To reflect the growing role of outpatient procedural care, measures of outpatient procedural outcomes were introduced in Orthopedics and Urology. (Analogous measures may be added to other specialties in future editions of the rankings.)

To identify outpatient procedures in these two specialties, potentially preventable complication rates for outpatient procedures were produced using the 3M Ambulatory Potentially Preventable Complications Grouper (AM-PPCs). We applied the Ambulatory Potentially Preventable Complications grouper software (AM-PPC; 3M Health Information Systems) to Medicare hospital fee-for-service outpatient claims and inpatient claims from 2019 to 2021. The AM-PPCs software assigns qualifying outpatient visits to one of several defined Procedure Sub Groups (PSGs), which are roughly analogous to DRGs but apply to outpatient procedures.

The AM-PPCs software also identifies potentially preventable complications, defined as a credible complication that can be attributed to the ambulatory procedure (e.g., infections, mechanical complications, bleeding/clotting, pneumonia/pulmonary, etc.) and is present on admission in a subsequent inpatient admission or emergency department visit that occurred within 30 days of an at-risk procedure. While AM-PPCs can also identify potentially preventable complications that present during post-procedural ambulatory encounters, the U.S. News measures did not include these events because of limitations in the completeness of the available Medicare data.

The measure evaluates the ability of hospitals to successfully perform procedures without complications using an observed to expected ratio of potentially preventable complications. Each hospital's observed complication count is calculated as the total number of outpatient procedures with a subsequent clinically relevant complication within 30 days across all PSGs assigned to the specialty. **Table 11** provides the list of PSGs assigned to the Orthopedics and Urology specialties.

**Table 11. List of PSGs for Orthopedics and Urology Outpatient Outcomes**

Orthopedics		Urology	
PSG	PSG Description	PSG	PSG Description
1	Shoulder and Elbow Arthroscopy Procedures	43	Male genital System Procedures
2	Hand and Wrist Arthroscopy Procedures	90	Extracorporeal Shock Wave Lithotripsy
3	Knee Arthroscopy Procedures	91	Lower Genitourinary Procedures
4	Hip Arthroscopy Procedures	93	Upper Genitourinary Procedures
5	Ankle Arthroscopy Procedures	94	Upper Genitourinary Stent and Guidewire Procedures
6	Foot Arthroscopy Procedures	95	Upper Genitourinary Catheter (Percutaneous) Procedures
7	Shoulder and Elbow Arthroplasty Procedures	101	Prostate Biopsy Procedures
9	Shoulder and Elbow Arthroplasty Revision Procedures		
10	Hand and Wrist Arthroplasty Procedures		
11	Hip Arthroplasty Procedures		
12	Hip Arthroplasty Revision Procedures		
13	Knee Arthroplasty Procedures		
14	Knee Arthroplasty Revision Procedures		
15	Foot and Ankle Arthroplasty Procedures		
16	Cervical Spine Fusion Procedures		
17	Cervical Spine Procedures		
18	Scalenus Procedures		
19	Lumbar and Sacral Spine Fusion Procedures		
20	Lumbar and Sacral Spine Procedures		
21	Thoracic Spine Fusion Procedures		
22	Thoracic Spine Procedures		
23	Open Hand and Wrist Procedures		
24	Open Shoulder Procedures		
25	Open Elbow Procedures		
26	Foot (Mid/Fore) Procedures		
27	Foot (Hind/Ankle) and Lower Leg Procedures		
28	Open Knee Fracture Repair and Ligament Procedures		
29	Other Knee and Soft Tissue Procedures		
30	Open Hip Fracture Repair and Other Bone Procedures		
31	Hip Extra-Articular and Soft Tissue Procedures		
32	Open Hip Intra-Articular Procedures		

To calculate the expected complication count for each hospital, each at-risk visit is first assigned a complication risk rate, which is calculated for each age group (65-74, 75-84, and 85+ years old) in each PSG assigned to the specialty. These complication risk rates are calculated by dividing the nationwide sum of all procedures with complications by the nationwide sum of all at-risk procedures within each age category and PSG group. Then, all complication risk rates for a given hospital in a given specialty are summed to generate the hospital-level expected complication counts for that specialty. Lastly, the observed complication count was divided by the expected complication count to generate a hospital-level, specialty-specific observed-to-expected ratio (OER).

Because OERs have a skewed distribution with a small number of extremely high values, OER values were winsorized at the 99<sup>th</sup> percentile of the OERs in each specialty before being normalized, weighted, and combined with the other outcome measures in the model. Raw PPC OERs range from 0 to a theoretical maximum of infinity, with lower values indicating better than expected performance, and higher values indicating worse than expected performance on the measure. However, for public display, we flip the direction of PPC OER values to match the orientation of other quality measures that we publish, in which higher values indicate better performance. We publish categorical values ranging from 1 to 5 based on the quintiles of the flipped OER values on each hospital's scorecard. These bands are meant to help users of rankings quickly compare how hospitals perform relative to each other.

## **Normalization and Weighting**

As with structural measures, the outcome measures were normalized before being weighted and combined. The normalization formula can be found in ***Section II.B Structure***. Once normalized, the normalized survival and discharge to home values (and outpatient potentially preventable complications values) were weighted. These weighted scores are used in the calculation of the overall raw score in ***Section II.G Calculation of the Overall Score for the Data-Driven Specialties***. For all specialties, the sum of the weights is 45%, the overall weight for the outcomes component of the overall score. In Orthopedics and Urology, survival received a weight of 32%; discharge to home, 8%; and outpatient complications, 5%. In all other data-driven specialties except for Rehabilitation, survival received a weight of 36% and discharge to home a weight of 9%.

## **Outcomes for Rehabilitation**

Death is not an informative outcome measure in rehabilitation care as the focus of care is patient functional improvement, community discharge and avoidance of future acute care where possible. This domain of the rankings is defined by outcomes available from IRF Care Compare including the following:

- Preventing potentially avoidable 30-day hospital readmissions after IRF discharge;
- Preventing potentially avoidable hospital readmissions during rehabilitation care; and
- Successful discharge to home and community.

Data from the two readmissions measures has been converted from a rate of readmissions to a rate of successful avoidance of readmissions while data from the discharge measure was taken as provided in IRF Care Compare. All three outcome measures are treated as continuous variables in order to maximize use of the information contained in the variable, and to minimize the risk of measurement error due to categorization. Each of these measures are worth 10%, for a total of 30% of the final ranking.

## D. Process/Expert Opinion

The process/expert opinion component was worth 15% of the overall score in all specialties except for Cardiology, Heart & Vascular Surgery, Neurology & Neurosurgery, Obstetrics & Gynecology, and Pulmonology & Lung Surgery, in which it was worth 12%; and Rehabilitation, in which it was worth 35%, of which 30% was based on expert opinion and 5% on patient safety.

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

To collect these nominations, a survey of board-certified physicians across the country is conducted each year. The rankings used nominations from the most recent 3 years of physician surveys (2021, 2022, and 2023). Scores were calculated separately in each year and averaged such that each year’s scores are given equal weighting in the final expert opinion score as shown in *Table 12*.

**Table 12. 2021, 2022, and 2023 Expert Opinion Weights by Survey Year**

Sample Source	Expert Opinion Weight (%)
2021 Physician Survey	33.3
2022 Physician Survey	33.3
2023 Physician Survey	33.3

The sections below describe the 2023 survey. The approaches used for the 2021 and 2022 surveys are described in the corresponding methodology reports for those years, available at [www.rti.org/besthospitals](http://www.rti.org/besthospitals).

Expert opinion scores were calculated in the same manner for both data-driven and expert opinion-based specialties. The following description therefore applies to both.

## **2023 Survey Approach**

### *Sample Selection*

The sample for the 2023 physician survey was selected from a database of all practicing U.S. physicians compiled by Doximity, the largest online professional network of U.S. physicians. Doximity's comprehensive Physician Database includes every practicing U.S. physician, identified by National Provider Identifier (NPI) number. Sources include the U.S. Department of Health and Human Services NPI Registry, state medical boards, and specialty boards (e.g., the American Board of Medical Specialties, the American Board of Surgery, and the American Osteopathic Association). Doximity's proprietary database is augmented by more than 750,000 registered and verified physician members who review and update their profiles to provide another set of primary data. U.S. News & World Report holds an equity interest in Doximity.

*Table 13* provides the population counts of specialists in the Doximity database.

### *Data Collection Procedures*

The Doximity member survey was sent to 352,233 physicians across the 15 specialties and was conducted from February to March 2023. Physicians received an initial email invitation with a link to the survey. The survey asked physicians to supply the names of up to five hospitals in their specialty that provide the best care to patients with serious conditions, without considering location or expense. Nonresponding physicians received one follow-up email reminder with a link to the survey. In addition, eligible Doximity members – i.e., those who were board certified in a relevant specialty – received alerts upon login to Doximity.com or use of the Doximity app inviting them to participate.

**Table 13. Population Counts by Best Hospitals Specialty**

<b>Specialty</b>	<b>Subspecialties Included (based on board certification)</b>	<b>Doximity Members</b>
Cancer	Hematology, gynecologic oncology, interventional radiology <sup>†</sup> , radiation oncology (ABMS and AOA) Medical oncology, complex general surgical oncology, surgical oncology, musculoskeletal oncology, therapeutic radiology (ABMS) Oncology, radiation therapy (AOA)	28,454
Cardiology, Heart & Vascular Surgery	Clinical cardiac electrophysiology, thoracic, cardiac, or cardiothoracic surgery <sup>§</sup> , interventional cardiology, vascular surgery, advanced heart failure and transplant, interventional radiology <sup>†</sup> (ABMS and AOA) Cardiovascular diseases, adult congenital heart disease, (ABMS) Vascular and interventional radiology <sup>†</sup> (AOA)	41,642
Diabetes & Endocrinology	Endocrinology, diabetes & metabolism (ABMS and AOA)	8,630
Ear, Nose & Throat	Otolaryngology, plastic surgery (Facial, Head, Neck) (ABMS and AOA)	12,403
Gastroenterology & GI Surgery*	Gastroenterology (ABMS and AOA) Colon and rectal surgery, transplant hepatology (ABMS)	32,496
Geriatrics	Geriatric medicine (ABMS and AOA)	12,134
Obstetrics & Gynecology	Obstetrics & gynecology (ABMS and AOA)	46,005
Neurology & Neurosurgery	Neurology, neurological surgery, neuroradiology, interventional radiology <sup>†</sup> (ABMS and AOA)	29,821
Ophthalmology	Ophthalmology (ABMS and AOA)	20,881
Orthopedics	Orthopedic surgery, sports medicine <sup>††</sup> , interventional radiology <sup>†</sup> (ABMS and AOA) Hand surgery (AOA)	30,639
Psychiatry	Psychiatry (ABMS and AOA) Geriatric psychiatry (AOA)	39,071
Pulmonology & Lung Surgery	Pulmonary diseases, thoracic surgery <sup>‡</sup> (ABMS and AOA)	11,803
Rehabilitation	Physical medicine & rehabilitation, sports medicine <sup>††</sup> (ABMS and AOA)	19,186
Rheumatology	Rheumatology (ABMS and AOA)	7,091
Urology	Interventional radiology <sup>†</sup> (ABMS and AOA) Urology (ABMS) Urological surgery (AOA)	11,977

<sup>†</sup> Interventional radiologists identified by the Society of Interventional Radiology as having >50% of clinical volume in this specialty area.

<sup>§</sup> Except thoracic surgeons identified by U.S. News as subspecializing in surgical care of thoracic cancer

\* General surgeons certified by the American Board of Surgery (ABMS) or Board of Surgery (AOA) identified by U.S. News as subspecializing in surgical care of gastrointestinal cancer were also eligible.

<sup>‡</sup> Thoracic surgeons identified by U.S. News & World Report as subspecializing in surgical care of thoracic cancer.

<sup>††</sup> Physicians board certified as sports medicine from the Board of Physical Medicine & Rehabilitation (ABMS or AOA) were eligible in Rehabilitation. All other sports medicine physicians were eligible in Orthopedics.

## Response Rates

The overall response rate for the 2021, 2022, and 2023 surveys was 10.0% using American Association of Public Opinion Research (AAPOR) standard response rate 6,\*\*\*\* which treats undeliverables as ineligible.

Of the 352,233 Doximity members identified as eligible in one of the 15 specialties, 31,315 completed the web survey. The final response rate was 8.9% using AAPOR standard response rate 2. **Table 14** shows response rates by region and specialty.

**Table 14. Member Survey Response Rates by Region and Specialty, 2023**

Specialty	Midwest (%)	Northeast (%)	South (%)	West (%)	Total (%)
Cancer	12.1	19.3	9.5	9.5	12.4
Cardiology, Heart & Vascular Surgery	11.0	14.9	8.0	7.2	10.1
Diabetes & Endocrinology	10.1	15.8	7.0	8.7	10.3
Ear, Nose & Throat	14.7	18.6	12.1	12.1	13.9
Gastroenterology & GI Surgery	8.6	12.8	5.5	6.0	7.9
Geriatrics	3.9	9.3	3.7	5.4	5.7
Obstetrics & Gynecology	5.0	10.9	3.1	3.6	5.2
Neurology & Neurosurgery	13.3	19.0	9.7	9.9	12.7
Ophthalmology	13.4	11.6	8.6	11.2	10.8
Orthopedics	6.7	14.6	5.1	4.5	7.1
Psychiatry	3.6	9.4	2.9	2.3	4.7
Pulmonology & Lung Surgery	12.6	16.3	9.0	7.7	11.2
Rehabilitation	12.0	13.8	7.2	8.3	10.0
Rheumatology	9.9	16.2	5.8	6.6	9.4
Urology	12.9	18.1	7.2	9.0	11.0
<b>Overall Response Rate</b>	<b>9.3%</b>	<b>14.0%</b>	<b>6.6%</b>	<b>6.7%</b>	<b>8.9%</b>

Note: Response rates are rounded.

\*\*\*\* Definitions are available online at [http://www.aapor.org/AAPOR\\_Main/media/publications/Standard-Definitions20169theditionfinal.pdf](http://www.aapor.org/AAPOR_Main/media/publications/Standard-Definitions20169theditionfinal.pdf)



## Survey Response Weighting

The weighting approach for the 2023 survey is described below. The approaches used for previous surveys are provided in the corresponding methodology reports for those years, which are available at [www.rti.org/besthospitals](http://www.rti.org/besthospitals).

For the 2023 Doximity member survey, we used post-stratification weights for age by gender (55+ male, <55 male, and female<sup>††††</sup>) as well as census region. Weights were constructed and applied to each physician's survey response to make nominations representative of all Doximity members nationally. Since all Doximity members were surveyed, weights were used to adjust for differences in nonresponse only by region and demographics. Additionally, scores were adjusted based on a physician's current affiliation. Data from multiple sources were used to determine if a physician is currently affiliated with each hospital they nominated. Then certain adjustments were performed that result in nominations from unaffiliated physicians being weighted higher than those from physicians who have a current relationship with the hospital they nominated. The effect of these adjustments is to give higher weight to the opinions of unaffiliated physicians than to those of affiliated physicians, particularly in cases where a hospital received a relatively large proportion of its nominations from affiliated physicians. To ensure the integrity of the physician survey and weighting procedures for the Expert Opinion score, no additional methodological detail about this new adjustment will be made public.

## Transformation

The rankings display weighted 3-year expert opinion values. Before incorporating the values into the scoring for the 12 data-driven specialties, however, the values were first capped at 25% (i.e., values exceeding 25% were set to 25%) and then log transformation was implemented to adjust for the skewed distribution. These transformations were not applied in the three expert opinion-based specialties.

By its nature, a survey that solicits recommendations for “bests” will generate data that do not follow a normal distribution. Relatively few hospitals will receive even one “best” recommendation. Of those that do, even fewer will receive a significant number. The distribution of responses will inevitably be highly skewed. Because outcome and structural data are not similarly skewed, expert opinion would have a disproportionate impact if the extreme skewness was not addressed.

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<sup>††††</sup> Age categories were collapsed for females because there were too few female physicians over 55 in the sample.

Log transformation in the data-driven rankings reshapes the distribution to match expert opinion data more closely to those of the other components. Transformation is applied to the weighted expert opinion data using the formula  $\log(R_X + 10) - 1$ , where  $R_X$  is the weighted expert opinion score for hospital X. Adding a constant of 10 moderates the effect of the transformation.

The transformed data are then normalized. **Figure 3** demonstrates the impact of the transformation. Transformed expert opinion scores are higher than untransformed scores, but the impact is greater on low scores than on high scores, as illustrated by these examples:

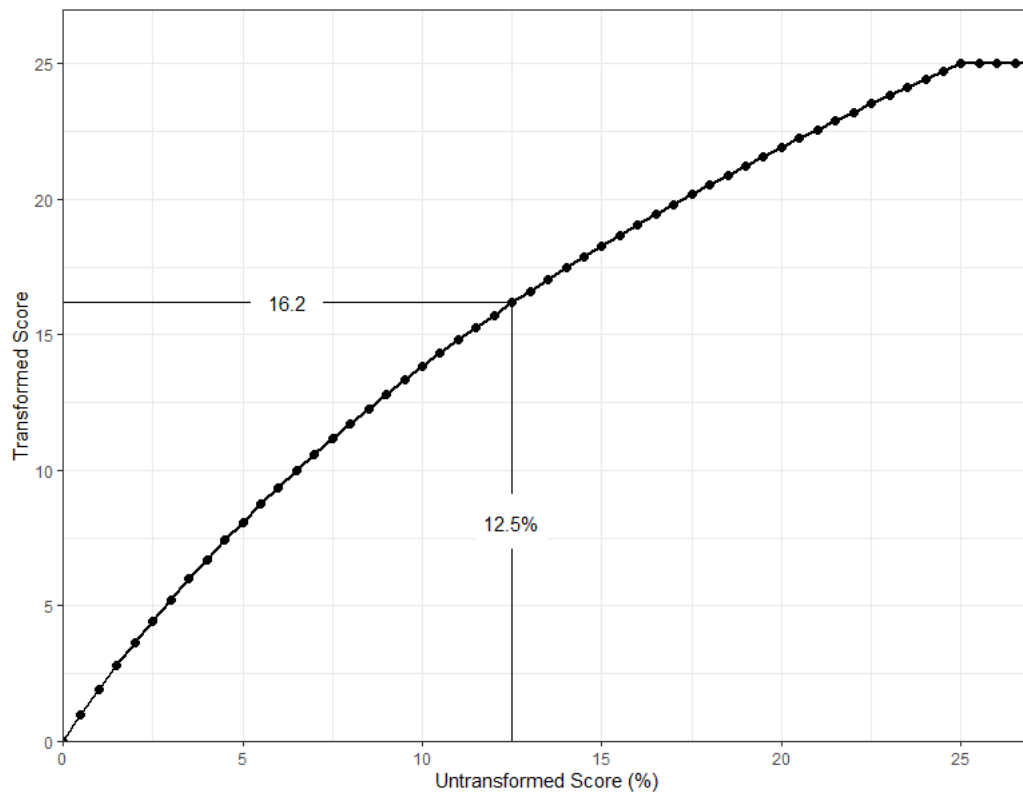
- An untransformed score of 1% has a transformed value of 1.9,
- an untransformed score of 12.5% has a transformed value of 16.2, and
- an untransformed score of 20% has a transformed value of 21.9.

Skewness is reduced, and the overall effect of the expert opinion score on hospitals' final standing in the rankings is diminished.

## **Normalization and Weighting**

As with structural and outcome measures, expert opinion data were normalized before being combined with other metrics. Normalization transformed index values into a distribution between 0 and 1 based on a measure's range of *possible* (as opposed to observed) values between 0% and the previously mentioned cap at 25%. A hospital's normalized expert opinion score, after log transformation, was given a component weight of 12 in Cardiology, Heart & Vascular Surgery, Neurology & Neurosurgery, Obstetrics & Gynecology, and Pulmonology & Lung Surgery; 30 in Rehabilitation, and 15 in all other data-driven specialties. This weighted score is used in the calculation of the overall raw score in **Section II.G Calculation of the Overall Score for the Data-Driven Specialties**.

**Figure 3. Expert Opinion Data Before and After Transformation**



### **Patient Safety (Rehabilitation)**

A patient safety measure is drawn from IRF Care Compare and focuses on influenza vaccination rates of healthcare personnel, an important risk factor for patient safety within a healthcare setting. Data from this measure is treated as a continuous variable in order to maximize use of the information contained in the variable, and to minimize the risk of measurement error due to categorization. This measure is worth 5% of the final ranking.

### **E. Patient Experience Score**

Starting with the 2019-20 rankings, the Best Hospitals Specialty Rankings include a patient experience score based on data from the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) patient satisfaction survey<sup>####</sup>. This measure was incorporated in response to feedback from patients, hospital leaders and other stakeholders about the importance of the patient experience when considering healthcare quality.

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#### <https://www.medicare.gov/hospitalcompare/Data/Overview.html>

For this measure, a hospital's linear mean overall score from HCAHPS (variable name H\_HSP\_RATING\_LINEAR\_SCORE) will be used to calculate the patient experience score. The data file from HCAHPS used for the rankings is from April 1, 2021 (measure start date), through March 31, 2022 (measure end date). For the 11 cancer specialty hospitals exempt from the CMS Inpatient Prospective Payment System, analogous data from the PPS-exempt Cancer Hospital (PCH) HCAHPS dataset were used, if available. If a hospital had information from both sources, we used the PPS-exempt data for the Cancer specialty only. Otherwise, we used the information provided in either the standard HCAHPS or the PPS-exempt for all specialties. HCAHPS scores in both datasets could range from 0 to 100.

In Orthopedics, we introduced an adjustment to account for the fact that HCAHPS scores tend to be higher at specialty hospitals versus general acute-care hospitals. Based on our own research and feedback from the medical community, we believe this is due to different characteristics in the patient population and not wholly the result of different outcomes. The group mean adjustment we are introducing brings the mean HCAHPS scores at specialty hospitals closer to those at general hospitals to ensure that scores are comparable across hospital service categories. Our adjustment formula is as follows:

$$y_q = \max\left(0, x_q - \left(\frac{1 - x_q}{1 - \bar{x}_q}\right) * (\bar{x}_q - \bar{x}_p)\right)$$

Where  $y_q$  and  $x_q$  refer to a specialty hospital's adjusted and unadjusted HCAHPS scores, respectively;  $\bar{x}_q$  is the mean score at all specialty hospitals; and  $\bar{x}_p$  is the mean score at all general hospitals. As a result of this adjustment, a specialty hospital with a perfect unadjusted score will receive a perfect adjusted score, whereas a specialty hospital with an unadjusted score equal to the mean score among specialty hospitals will receive an adjusted score equal to the mean score among general hospitals.

For hospitals with multiple Medicare Provider Numbers (MPN) in the standard HCAHPS data, we average their HCAHPS scores for inclusion in the rankings. If a hospital is missing entirely from the HCAHPS data, we rank the hospital in each specialty without regard to HCAHPS. This is done by first calculating the overall score in each specialty for all eligible hospitals minus the HCAHPS measure. Then, the overall score is computed for all hospitals with HCAHPS values (and including the HCAHPS measure). Finally, the overall score for hospitals missing HCAHPS is derived based on their overall score value from the first calculation (the score without HCAHPS). This ensures that their overall score in the version including HCAHPS aligns with their score in the version not including HCAHPS.

Note that while we use a weighted version of the HCAHPS scores in the overall rankings for each of the 12 data-driven specialties (see *Section II.G Calculation of the Overall Score for the Data-Driven Specialties*), hospital profiles on [usnews.com](https://www.usnews.com) show the CMS star ratings as a score ranging from 1-5. The star ratings are easier for comparisons between hospitals by consumers and are more easily understood than the HCAHPS score. Note that in cases where multiple scores are available and have been averaged, we display the star value associated with the hospital's main MPN.

Note that patient experience data for rehabilitation facilities is not widely available, and the HCAHPS score is currently not incorporated into the rehabilitation rankings. We hope to be able to use a rehabilitation-specific CAHPS score and/or patient-reported outcomes in the future.

## **Normalization and Weighting**

The patient experience scores are normalized before being combined with other metrics for the final ranking. The normalization formula is based on the theoretical minimum and maximum values of 0 and 100. This effectively results in the observed score being converted into a decimal between 0 and 1. A hospital's normalized patient experience score is then given a weight of 5 in all other data-driven specialties. This weighted score is used in the calculation of the overall raw score in *Section II.G Calculation of the Overall Score for the Data-Driven Specialties*.

## **F. Public Transparency (Cardiology, Heart & Vascular Surgery, Obstetrics & Gynecology, Neurology & Neurosurgery, and Pulmonology & Lung Surgery)**

Specialty-specific indicators of public transparency have been added to the rankings over time, as various clinical registries (or U.S. News itself) have commenced voluntary public reporting of relevant specialty-specific performance measures. Public transparency indicators are now part of the rankings in Cardiology, Heart & Vascular Surgery (added in 2016), Neurology & Neurosurgery (2020), Obstetrics & Gynecology (2022) and Pulmonology & Lung Surgery (2023).

For many years, clinicians in various medical specialties have collaborated with their counterparts at other hospitals to create clinical registries to foster quality improvement. More recently, public transparency has been identified as an important additional application for registry-based quality measurement. The Society of Thoracic Surgeons (STS) initiated voluntary public reporting for ACSD-participating hospitals in 2010. In 2015, the American College of Cardiology (ACC) began a similar program for two of the 10 registries that comprise the NCDR, the CathPCI Registry and the ICD Registry; it has since added public reporting from its Chest Pain-MI registry.

In 2019, the American Heart Association Get With The Guidelines (GWTG)<sup>§§§§§</sup> quality improvement programs started voluntary public reporting.

Transparency via clinical registries and other public transparency programs can facilitate informed decision making by patients, which in turn may boost patient engagement in their healthcare. Transparency also creates opportunities for researchers to externally validate or critically evaluate the results of hospital rankings such as Best Hospitals. Moreover, it demonstrates a public commitment on the part of the participating hospitals to the process of pursuing quality improvement.

## **Cardiology, Heart & Vascular Surgery**

This measure rewards hospitals for voluntarily reporting cardiac-care performance data to the public through at least one of three important clinical registries: the National Cardiovascular Disease Registry (NCDR), which is maintained by the ACC; the Adult Cardiac Surgery Database (ACSD), maintained by the STS; and Get With The Guidelines (GWTG), maintained by the American Heart Association.

Hospitals received a score of 0 to 3 for participating in public reporting with ACC or GWTG and STS regardless of the specific ratings or performance scores each registry reported. For 2023-2024, a hospital got full credit for publicly reporting (a score of 3) if it reported data in the ACC and/or GWTG registries and also reported data in the STS registry. A hospital that reported data in STS but did not report in ACC or GWTG received 2 points; hospitals that reported in ACC and/or GWTG but not STS also received 2 points. Hospitals received zero points if they did not publicly report from any of these three registries. Only publicly reporting from these three registries earned hospitals a score on the measure. Hospitals that submitted data to these registries but did not allow the information to be made public did not receive credit. No normalization or weighting was done to this measure. The final public transparency score is used in the calculation of the overall raw score in *Section II.G Calculation of the Overall Score for the Data-Driven Specialties*.

### ***Details of Participation Requirements (ACC)***

To receive credit for ACC public reporting, hospitals must have participated in either the ICD Registry, the CathPCI Registry, and/or the Chest Pain-MI Registry and voluntarily agreed to allow data from these registries to be posted on the ACC registry website, [www.CardioSmart.org](http://www.CardioSmart.org). To

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<sup>§§§§§</sup> <https://www.heart.org/en/professional/quality-improvement/get-with-the-guidelines/get-with-the-guidelines-stroke/get-with-the-guidelines-stroke-overview>

receive credit, the hospital had to have a public reporting status of “Participating with ACC” for at least one of those registries as of December 5, 2022.

### *Details of Participation Requirements (STS)*

To receive credit for STS public reporting, STS Adult Cardiac Surgery Database participants had to have their scores and data publicly displayed on the STS website (<http://www.sts.org>) as of December 23, 2022. STS ACSD public reporting currently includes outcomes for the following surgeries:

- Coronary artery bypass graft (Isolated CABG)
- Aortic valve replacement (Isolated AVR)
- AVR plus CABG surgeries (AVR+CABG)

### *Details of Participation Requirements (American Heart Association)*

To receive credit for American Heart Association public reporting, hospitals must have participated and agreed to publicly report their data in at least one of the following Get With The Guidelines registries:

- GWIG - AFib
- GWIG - Coronary Artery Disease
- GWIG - Heart Failure
- GWIG - Resuscitation

A hospital’s data must have been displayed on the American Heart Association publicly reporting website (<https://qualitynearme.heart.org/GWTGPUBLICREPORTING>) as of August 31, 2022 to be awarded credit for these registries.

## **Obstetrics & Gynecology**

The transparency measure rewards hospitals for voluntarily reporting maternity care volume, outcomes, and structural program data on the annual U.S. News Maternity Services survey. Hospitals received a score worth 3% of their total ranking for this metric, if they completed the U.S. News Maternity Care survey during the prior calendar year. No normalization or weighting was done to this measure.

## **Neurology & Neurosurgery**

The transparency measure rewards hospitals for voluntarily reporting stroke care to the public through the Get With The Guidelines (GWTG-Stroke) quality improvement program from the American Heart Association. To receive credit, hospitals had to submit an opt-in form to the GWTG-Stroke registry by August 31, 2022. Hospitals received a score of 3 points for participating in public reporting, while hospitals that did not choose to be transparent through GWTG-Stroke received no credit. No normalization or weighting was done to this measure.

## **Pulmonology & Lung Surgery**

The transparency measure rewards hospitals for voluntarily reporting Lobectomy data via the Society of Thoracic Surgeons (STS) General Thoracic Surgery Database (GTSD) quality improvement program. To receive credit, hospitals had to submit an opt-in form to the registry by December 31, 2022. Hospitals received a score of 3 points for participating in public reporting, while hospitals that did not choose to be transparent through STS GTSD received no credit. No normalization or weighting was done to this measure.

The final public transparency score is used in the calculation of the overall raw score in *Section II.G Calculation of the Overall Score for the Data-Driven Specialties*.

## **G. Calculation of the Overall Score for the Data-Driven Specialties**

### **All Specialties (Excluding Cardiology, Heart & Vascular Surgery, Obstetrics & Gynecology, Neurology & Neurosurgery, Pulmonology & Lung Surgery, and Rehabilitation)**

The U.S. News ranking score reflects the following weights for each of the major components:

- Structure = 35%
- Process/expert opinion = 15%
- Outcomes = 45%
- Patient experience = 5%

Individual measure weights can be found in the component specific sections above.



Rankings by U.S. News score for the top 50 hospitals in each specialty are shown in **Appendix D**. Hospitals were recognized as High Performing in a specialty, for the Best Regional Hospitals lists, if they were not ranked in the top 50 but they received a score in the top 10 percent of all hospitals receiving a score in that specialty.

Equation (2) shows the formula for calculating the raw overall score for each specialty. A hospital's raw score in a specialty can be thought of as a simple sum of the four weighted ranking components, as shown below:

$$Raw\ score = \{(\sum_{i=1}^{n_s} S_i) + P + (\sum_{i=1}^{n_o} O_i) + PE\}, \quad (2)$$

where

- $S_i$  = normalized and weighted value for structural measure  $i$ ,
- $P$  = normalized and weighted value for process/expert opinion score,
- $O_i$  = normalized and weighted value for outcomes measure  $i$ ,
- $PE$  = normalized and weighted hospital-wide patient experience score.

This formula is illustrative only. It *cannot* be used to calculate the U.S. News score for an individual hospital or replicate a published score.

For presentation purposes, raw scores were transformed to a scale that assigns a U.S. News score of 100 to the top hospital. The formula for the transformation is shown in Equation (3):

$$U.S.\ News\ Score = (raw\ score - minimum) / range. \quad (3)$$

## **Cardiology, Heart & Vascular Surgery, Obstetrics & Gynecology, Neurology & Neurosurgery, and Pulmonology & Lung Surgery**

For Cardiology, Heart & Vascular Surgery, Obstetrics & Gynecology, Neurology & Neurosurgery, and Pulmonology & Lung Surgery, the U.S. News score included a fifth component—public transparency—which accounts for 3% of the overall score. To accommodate this component, process/expert opinion weight was reduced to 12%. The U.S. News score for these four specialties reflects the following weights for each major component:

- Structure = 35%
- Process/expert opinion = 12%
- Outcomes = 45%

- Patient experience = 5%
- Public transparency = 3%

The formula for calculating the raw score for these four specialties is shown in Equation (4), as shown below:

$$Raw\ score = \{(\sum_{i=1}^{n_s} S_i) + P + (\sum_{i=1}^{n_o} O_i) + PE + PT\}, \quad (4)$$

where

- $S_i$  = normalized and weighted value for structural measure  $i$ ,
- $P$  = normalized and weighted value for process/expert opinion score,
- $O_i$  = normalized and weighted value for outcomes measure  $i$ ,
- $PE$  = normalized and weighted hospital-wide patient experience score,
- $PT$  = public transparency score.

As with the other specialties, raw scores were transformed to a scale that assigned a score of 100 to the top hospital.

## Rehabilitation

For inpatient Rehabilitation, the U.S. News score represents a mix of structure, process (including patient safety), and outcomes but does not include patient experience or public transparency at this point in time. Given the fact that the Rehabilitation specialty was defined solely by expert-opinion prior to the 2022-2023 ranking, a higher weight for this component has been used to maintain the continuity with past rankings. For the 2023-2024 rankings, the expert-opinion measure is worth 35% of the total ranking. The other measures have been adjusted to reflect the availability and quality of the measures currently available.

The U.S. News score for Rehabilitation ranking reflects the following weights for each major component:

- Structure = 35%
- Process (including expert opinion and patient safety) = 35%
- Outcomes = 30%

The formula for calculating the raw score for Rehabilitation is shown in Equation (5), as shown below:

$$Raw\ score = \{(\sum_{i=1}^{n_s} S_i) + P + (\sum_{i=1}^{n_o} O_i)\}, \quad (5)$$

where

- $S_i$  = normalized and weighted value for Rehabilitation structural measure  $i$ ,
- $P$  = normalized and weighted value for Rehabilitation process/expert opinion score,
- $O_i$  = normalized and weighted value for Rehabilitation outcomes measure  $i$ .

As with the other specialties, raw scores were transformed to a scale that assigned a score of 100 to the top hospital.

### **Adjustments for Missing IRF Care Compare Data**

For hospitals that meet the eligibility requirements but do not have IRF Care Compare data, such as certain long-term acute-care hospitals and IRFs located in Maryland, which are exempt from CMS’s standard IRF reporting requirements, the rankings used a modeling technique to rank each facility without regard to the missing IRF Care Compare data. This is done by calculating the overall rehabilitation U.S. News Score two different ways. First, an overall score was calculated for all eligible hospitals (including those missing the IRF Care Compare measures) using a measure weight of zero for all IRF Care Compare measures and the measure weights described above for all other measures. Then, the overall score was computed again for all hospitals that have IRF Care Compare data, this time using the measure weights above for all measures, including those derived from IRF Compare. Finally, the overall score from the first calculation was used as the U.S. News Score for hospitals that are missing IRF Care Compare data, and the overall score from the second calculation is used for hospitals that have IRF Care Compare data. This ensures that eligible hospitals missing key data points are ranked relative to other rehabilitation hospitals only on the basis of the data available for all rehabilitation hospitals.

### **III. Expert Opinion-Based Specialties**

Available data for the three expert opinion-based specialties are significantly limited. Life-threatening conditions and procedures are more uncommon in ophthalmology and psychiatry, rendering mortality irrelevant as a primary outcome. Inpatient volume in rheumatology is also extremely low, making calculation of mortality unreliable. Reliable structural measures also are unavailable in these three specialties in most cases. Therefore, expert opinion alone determines the ranking in these specialties. This section describes the eligibility and procedures used to develop the rankings for these three specialties.

## **A. Eligibility**

In specialties driven solely by expert opinion, hospitals have never had to meet the same eligibility standards as in the data-driven specialties. Ranked hospitals are those with an expert opinion score of at least 5% across the last 3 years. Hospitals with a score of at least 3% and less than 5% are recognized as High Performing in the Best Regional Hospitals lists. Hospitals with a score of at least 1% are considered eligible and are listed in the specialty directory on the U.S. News website.

## **B. Process/expert opinion**

The data-driven specialties and expert opinion-based specialties share the same process/expert opinion component (see *Section II.D Process/Expert Opinion* for more information).

## **C. Calculation of the Rankings**

As described above, scores for the expert opinion-based specialties of Ophthalmology, Psychiatry, and Rheumatology must be calculated differently from scores for the data-driven specialties because of the unavailability of structural and outcomes measures. Thus, we rank hospitals in these specialties solely by expert opinion (see *Appendix E*).

## **IV. Number of Ranked Hospitals**

This year, 164 different hospitals were ranked in at least one data-driven or expert opinion-based Best Hospitals specialty. Another 16 specialty hospitals that closely coordinate care with a partner hospital shared one or two specialty-specific rankings with that partner.

## **V. Honor Roll & Best Regional Hospitals**

The Honor Roll since 1990 has recognized excellence across a broad range of inpatient services. Since 2016, the Honor Roll methodology has factored in both the specialty rankings and the Procedures & Conditions ratings (described in a separate methodology report issued by U.S. News). U.S. News added an additional Procedures & Conditions rating in 2023-2024 (Leukemia, Lymphoma & Myeloma), which has been incorporated into the Honor Roll methodology this year. Honor Roll, which appears in *Appendix F*, was determined as follows.

1. In Rehabilitation, the No. 1-ranked hospital received 10 Honor Rolls points and lower-ranked hospitals progressively received one less point down to 1 point for all hospitals ranked 10-50. Hospitals that do not offer inpatient rehabilitation on site received points earned by a nearby affiliated hospital belonging to the same health system, if that affiliated hospital was ranked in Rehabilitation and earned fewer total points toward the Honor Roll from all other specialties combined.
2. In each of the other 11 data-driven specialty rankings, the No. 1-ranked hospital received 25 Honor Roll points and lower-ranked hospitals progressively received one less point down to six points for No. 20. All hospitals ranked 21–50 received 5 points. A hospital ranked No. 1 in all other 11 data-driven specialties would have received  $25 \times 11 = 275$  points.
3. In each of the three expert opinion-based specialties, the No. 1-ranked hospital received 10 Honor Roll points, the No. 2 hospital received 9 points and lower-ranked hospitals progressively received one less point down to No. 10, which received 1 point. All hospitals from No. 11 to the last eligible hospital also received 1 point. A hospital ranked No. 1 in all three expert opinion-based specialties would have received 30 points.
4. In 17 of the 21 procedures and conditions for which U.S. News published ratings, <sup>\*\*\*\*\*</sup> hospitals received 12 points for each rating of High Performing. Only six points were awarded for each High Performing rating in two procedures related to structural heart disease (Aortic Valve Surgery and TAVR) and another six points were awarded for each High Performing rating in two procedures related to gynecological oncology (ovarian and uterine cancer surgery), because these two pairs of procedures are different approaches to treating similar conditions. If a hospital were rated High Performing in all 21 procedures and conditions, it would receive 228 points.
5. The Honor Roll recognizes the 20 hospitals that earned the most points out of the possible total of 543 across the 15 specialties and 21 procedures & conditions. In 2023-2024, hospitals that earned 273 points or more are recognized.

Since it's often not advisable to travel long distances to receive hospital-based care, U.S. News ranks hospitals regionally in both states and major metro areas. Within a state or metro area, regional hospital rank is determined by a hospital's performance in the Best Hospitals Specialty Rankings and by its Procedures & Conditions ratings. Details of the scoring methodology for the Best Regional Hospitals listings by state and metro areas are available at <http://health.usnews.com/health-care/best-hospitals/articles/faq-how-and-why-we-rank-and-rate-hospitals>.

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\*\*\*\*\* Chronic obstructive pulmonary disease (COPD); congestive heart failure (CHF); heart attack; stroke; diabetes; kidney failure; pneumonia; hip replacement; knee replacement; back surgery; hip fracture; abdominal aortic aneurysm (AAA) repair; heart bypass surgery (CABG); aortic valve surgery; transcatheter aortic valve replacement (TAVR); colon cancer surgery; lung cancer surgery; prostate cancer surgery; ovarian cancer surgery; uterine cancer surgery and leukemia, lymphoma & myeloma.

## VI. Changes to the Methodology for 2023-2024

A review of the changes to the methodology for this year of the Best Hospitals rankings is provided below. A brief description of changes made in past years can be found in Appendix C. For complete information on changes made in previous years, we recommend reviewing the project methodology reports for those years, which are available online at [www.rti.org/besthospitals](http://www.rti.org/besthospitals).

Methodological evolution is necessary because healthcare itself is constantly evolving. For example, the growing role of outpatient care served as an impetus for several of this year's changes. Stakeholder feedback led us to increase weight on objective quality measures, decrease weight on expert opinion, and add a transparency measure. Other input from clinical experts encouraged us to modify hospital eligibility criteria in several specialties and, in other specialties, revise case inclusion criteria. Changes to outcome measure definitions and risk adjustment, meanwhile, leveraged insights gained by the U.S. News team and scientific advances made by a federal agency.

- **Introducing outpatient outcomes in specialty rankings.** New “Prevention of outpatient procedural complications” outcome measures were added in this year’s Orthopedics and Urology rankings, and similar outcome measures may be added in other specialties in future editions of Best Hospitals. These measures, calculated by U.S. News using novel software developed by 3M Health Information Systems, evaluate the ability of hospitals to reduce complications related to procedures performed in an outpatient setting. The new measures are important to patients because outpatient surgeries account for a growing share of surgical procedures in Orthopedics and Urology, as well as for a majority of all surgeries performed in the U.S.
- **Expanded inclusion of outpatient cases in volume measures in two other specialty rankings.** Volume measures and volume-based eligibility rules used in the Ear, Nose & Throat and Obstetrics & Gynecology rankings now include relevant outpatient procedural cases.
- **Increased weight on objective quality measures, and reduced weight on expert opinion.** The weight on outcome measures increased from 37.5% to 45% – and other objective measures increased from 35% to 40% – in each of 11 specialties. The weight on physician opinion was reduced from as much as 27.5% to either 12% or 15%, depending on the specialty.
- **Rehabilitation methodology revised.** Objective measures now account in aggregate for 70% of the methodology for Rehabilitation. Weights on objective measures increase for outcomes from 20% last year to 30% this year, for volume from 10% to 15%, for patient services and resources (from 12% to 15%), and for external recognitions (CARF accreditation and Model Systems participation) from 3% to 5%. The 5% weight placed on staff vaccination rates remains unchanged.

Additionally, the volume measure was redefined to encompass six rehabilitation impairment categories (RICs), up from three RICs previously, in order to represent a more comprehensive examination of the breadth of care provided by each hospital.

- **Transparency measures' weight standardized and expanded to a fourth specialty.** All transparency measures were given a standard weight of 3% in specialties that utilize these measures. A new transparency measure was added to the Pulmonology & Lung Surgery specialty rankings and Lung Cancer Surgery ratings, based on the Society of Thoracic Surgeons (STS) General Thoracic Surgery Database (GTSD) quality improvement program. That new measure, and three existing transparency measures in other specialties, each received a weight of 3%.
- **Risk adjustment.** Using criteria from the Elixhauser Comorbidity Software Refined for ICD-10-CM (version v2022.1), risk adjustment of all inpatient outcome measures in all specialties employed an expanded set of 38 comorbidities, compared to 29 comorbidities used in previous editions of Best Hospitals. Documentation describing v2022.1 of the Elixhauser software is publicly available at [ahrq.gov](http://ahrq.gov).
- **Discharge to home outcome definition.** For the discharge to home outcome measure, discharges to an inpatient rehabilitation facility (IRF) were excluded from both the numerator and denominator. Previously these visits were treated as discharges to a location other than home. This change was made to reflect that a discharge to IRF suggests an intermediate outcome, which is less optimal than a discharge to home with full recovery but with better prospects for functional recovery than is implied by a discharge to SNF or long-term acute care.
- **Covid exclusions from outcome measures.** As in the prior year's rankings, certain visits were excluded from outcome measures to control for the disruptive and variable effects of the Covid-19 pandemic. However, these exclusion criteria were refined this year, such that a visit was excluded if it: a) occurred in March 2020; b) occurred in 2020 and the patient was diagnosed with Covid-19; or c) occurred between April 1, 2020, and December 31, 2020, and the hospital in which the visit occurred experienced a Covid-19 rate higher than the national mean or 15%, whichever was less, during the month in which the visit occurred. If the patient was diagnosed with Covid-19 in 2021 and onward, the visit is not excluded but is risk adjusted instead.
- **Nurse staffing.** Nurse staffing was calculated using data from the most recent single year available (i.e., the 2021 AHA survey database).
- **Winsorization of volume, nurse staffing and expert opinion.** Recent research demonstrates that hospital rankings determined by a composite of multiple measures are sensitive to the methods by which constituent measures are normalized.<sup>40</sup> Because volume, nurse staffing and expert opinion tend to have skewed distributions, with a small number of extremely high values, these measures were winsorized on the higher end of their distributions. That is, observed values

exceeding a certain threshold (e.g., greater than 25% for expert opinion) were replaced with the threshold score (e.g., 25%) prior to normalization of the measure. Similarly, the new outpatient outcome measures in Orthopedics and Urology were winsorized at their 99th percentile values.

- **Trauma center verification.** The project team took steps to independently verify that hospitals identified as trauma centers in the AHA Annual Survey Database did, in fact, have government-certified trauma centers on site.
- **Metastatic cancer cases excluded from Orthopedics.** To improve the homogeneity of the Orthopedics cohort, admissions involving a principal diagnosis of metastatic cancer were excluded.
- **HCAHPS adjustment for orthopedic and surgical hospitals.** In Orthopedics, to account for fundamental differences in the clinical characteristics of patients treated at specialty hospitals as compared to general acute-care hospitals, HCAHPS scores for orthopedic hospitals and surgical hospitals were algorithmically adjusted to be more comparable to scores observed across all general acute-care hospitals.
- **Specialty-specific eligibility criteria.** Eligibility criteria in Ear, Nose & Throat and Obstetrics & Gynecology were revised to consider total volume, including outpatient volume. Separately, cancer hospitals were excluded from five specialties (Diabetes & Endocrinology, Geriatrics, Orthopedics, Neurology & Neurosurgery, and Pulmonology & Lung Surgery) in which cancer care represents a relatively modest proportion of cases overall. This exclusion was introduced because the patient population previously included in each of those specialties was not comparable between cancer hospitals and hospitals that remain eligible in those specialties.
- **Cardiology, Heart & Vascular Surgery.** The specialty formerly known as Cardiology & Heart Surgery has been renamed Cardiology, Heart & Vascular Surgery, in recognition that vascular specialists take the lead on some cases that have consistently been included in the specialty's outcome measures. In certain contexts, U.S. News will use the shorthand Heart & Vascular to refer to Cardiology, Heart & Vascular Surgery.
- **Honor Roll.** Ordinal (numerical) rankings were not assigned to the Honor Roll this year.

## VII. Future Enhancements

The Best Hospitals methodology is reexamined and refined each year. As always, RTI will closely monitor the potential of new data sources and measures. Below, we describe several methodological enhancements that are being considered.



- **Evaluate additional outcome measures for possible inclusion.** We will continue to evaluate new and alternative outcome measures that may provide unique information on performance of hospital in caring for patients.
- **Further refine the risk-adjustment of the outcome measures.** We will continue to evaluate additional risk-adjustment refinements that may provide more precise adjustment for patient mix factors, including social determinants of health.
- **Add objective data to expert opinion-based specialties.** We are examining opportunities to add structural data and outcome measures to the current expert opinion-based specialties.
- **Evaluate transparency measures for other specialties.** We will continue to evaluate new measures for transparency of outcomes, similar to the ACC, STS, and American Heart Association public transparency measures used in Cardiology, Heart & Vascular Surgery, the American Heart Association public transparency measure used in Neurology & Neurosurgery, and STS public transparency measure used in Pulmonology & Lung Surgery.
- **Review external data sources.** We will investigate additional and new sources of data that offer quality measures for all hospitals. Potential data sources include quality indicators from AHRQ, AHA, CMS and the Joint Commission.

## **VIII. Contact Information**

We welcome suggestions and questions. Readers and users are encouraged to contact the Best Hospitals research team at the address listed below. This report, as well as all others from 2005 forward, can be viewed or downloaded from the RTI International website at [www.rti.org/BestHospitals](http://www.rti.org/BestHospitals). Specific questions or comments about this report can be sent to [BestHospitals@rti.org](mailto:BestHospitals@rti.org).

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**Appendix A**  
**Structural Variable Map**

The following variables, used to construct structural elements of the 2023-2024 data-driven rankings, were taken from the 2021 Annual Survey of Hospitals Database published by the American Hospital Association, unless otherwise specified. Hospitals did not receive more than one point for any one service.

**Key Technologies (8 points possible)**

<b>1 point awarded if...</b>
DRADFHOS, DRADFSYS or DRADFVEN=1
FFDMHOS, FFDMSYS or FFDMVEN=1
IGRTHOS, IGRTSYS or IGRTVEN=1
MSCTHOS, MSCTSYS, MSCTVEN, MSCTGHOS, MSCTGSYS or MSCTGVEN=1
PETCTHOS, PETCTSYS or PETCTVEN=1
ROBOHOS, ROBOSYS or ROBOVEN=1
SPECTHOS, SPECTSYS or SPECTVEN=1
SRADHOS, SRADSYS or SRADVEN=1

**Cancer Advanced Technologies (8 points possible)**

<b>1 point awarded if...</b>
FFDMHOS, FFDMSYS or FFDMVEN=1
IGRTHOS, IGRTSYS or IGRTVEN=1
IMRTHOS, IMRTSYS or IMRTVEN=1
ROBOHOS, ROBOSYS or ROBOVEN=1
PETCTHOS, PETCTSYS or PETCTVEN=1
BEAMHOS, BEAMSYS or BEAMVEN=1
SRADHOS, SRADSYS or SRADVEN=1
OTBONHOS, OTBONSYS or OTBONVEN=1

**Cardiology, Heart & Vascular Surgery Advanced Technologies (6 points possible)**

<b>1 point awarded if...</b>
MSCTHOS, MSCTSYS, MSCTVEN, MSCTGHOS, MSCTGSYS or MSCTGVEN=1
PETCTHOS, PETCTSYS or PETCTVEN=1
ROBOHOS, ROBOSYS or ROBOVEN=1
SPECTHOS, SPECTSYS, SPECTVEN=1
TISUHOS, TISUSYS or TISUVEN=1
CMS Heart Transplant Center=1

### Diabetes & Endocrinology Advanced Technologies (4 points possible)

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

### Ear, Nose & Throat Advanced Technologies (1 point possible)

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

### Gastroenterology & GI Surgery Advanced Technologies (7 points possible)

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

### Obstetrics & Gynecology Advanced Technologies (5 points possible)

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



### Neurology & Neurosurgery Advanced Technologies (5 points possible)

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

### Orthopedics Advanced Technologies (2 points possible)

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

### Pulmonology & Lung Surgery Advanced Technologies (6 points possible)

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

### Rehabilitation Advanced Technologies (7 points possible)

1 point awarded if...
RASTHOS, RASTSYS, or RASTVEN=1
REDSHOS, REDSSYS, or REDSVEN=1
RPRSHOS, RPRSSYS, or RPRSVEN=1
RBOTHOS, RBOTSYS, or RBOTVEN=1
RSIMHOS, RSIMSYS, or RSIMVEN=1
CTSCNHOS, CTSCNSYS, or CTSCNVEN=1
PETCTHOS, PETCTSYS, or PETCTVEN=1

### Urology Advanced Technologies (6 points possible)

1 point awarded if...
DRADFHOS, DRADFSYS or DRADFVEN=1
IGRTHOS, IGRTSYS or IGRTVEN=1
IMRTHOS, IMRTSYS or IMRTVEN=1
PETCTHOS, PETCTSYS or PETCTVEN=1
ROBOHOS, ROBOSYS or ROBOVEN=1
SRADHOS, SRADSYS or SRADVEN=1

## Nurse Staffing

Index equals:
<p><b>Calculation for hospitals with <u>no</u> onsite skilled nursing:</b> Full-time Equivalent Registered Nurses (FTEN) divided by Adjusted Average Daily Census (ADJADC)<sup>22</sup>. In cases where FTEN is missing the value is imputed using a sample of hospitals with non-extreme ratios with the following data: FTEN (Full time equivalent registered nurses reported), FTERN (Full time equivalent registered nurses estimated), ADJADC (Adjusted Average Daily Census) BDTOT (total hospital beds set up and staffed).</p>
<p><b>Calculation for hospitals with onsite skilled nursing:</b> If a hospital has a nursing home type of long-term care unit (SUNITS=1) and reports registered nurse FTEs for this facility (FTERNLT&gt;0), then calculate the ratio by dividing the Registered Nurses FTEs (FTEN) – the Registered Nurses FTEs assigned to the nursing facility (FTERNLT) by the modified Adjusted Average Daily Census (ADJADCH). Note that the ADJADCH is provided by the AHA directly to the project.</p>

## Trauma Center

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

## Cancer Patient Services (8 points possible)

1 point awarded if...
GNTCHOS, GNTCSYS or GNTCVEN=1
HOSPCCHOS, HOSPCSYS or HOSPCVEN=1
PAINHOS, PAINSYS or PAINVEN=1
PALHOS, PALSYS or PALVEN=1
PCAHOS, PCASYS or PCAVEN=1
LINGHOS, LINGSYS or LINGVEN=1
AIRBHOS, AIRBSYS or AIRBVEN=1
WMGTHOS, WMGTSYS or WMGTVEN=1

## Cardiology, Heart & Vascular Surgery Patient Services (8 points possible)

1 point awarded if...
CHABHOS, CHABSYS or CHABVEN=1
CICHOS, CICSYS or CICVEN=1
HOSPCCHOS, HOSPCSYS or HOSPCVEN=1
PAINHOS, PAINSYS or PAINVEN=1
PALHOS, PALSYS or PALVEN=1
PCAHOS, PCASYS or PCAVEN=1
LINGHOS, LINGSYS or LINGVEN=1

<sup>22</sup> Based on the AHA documentation, the ADJADC is derived by first multiplying the number of inpatient days by the ratio of outpatient revenue per outpatient visit to inpatient revenue per inpatient day (to get the number of patient days attributable to outpatient services), then adding that to the number of inpatient days.

WMGTHOS, WMGTSYS or WMGTVEN=1
-------------------------------

**Diabetes & Endocrinology Patient Services (8 points possible)**

<b>1 point awarded if...</b>
GNTCHOS, GNTCSYS or GNTCVEN=1
HOSPCHOS, HOSPCSYS or HOSPCVEN=1
PAINHOS, PAINSYS or PAINVEN=1
PALHOS, PALSYS or PALVEN=1
PCAHOS, PCASYS or PCAVEN=1
LINGHOS, LINGSYS or LINGVEN=1
AIRBHOS, AIRBSYS or AIRBVEN=1
WMGTHOS, WMGTSYS or WMGTVEN=1

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

<b>1 point awarded if...</b>
GNTCHOS, GNTCSYS or GNTCVEN=1
HOSPCHOS, HOSPCSYS or HOSPCVEN=1
PAINHOS, PAINSYS or PAINVEN=1
PALHOS, PALSYS or PALVEN=1
PCAHOS, PCASYS or PCAVEN=1
LINGHOS, LINGSYS or LINGVEN=1
AIRBHOS, AIRBSYS or AIRBVEN=1
WMGTHOS, WMGTSYS or WMGTVEN=1

**Gastroenterology & GI Surgery Patient Services (8 points possible)**

<b>1 point awarded if...</b>
GNTCHOS, GNTCSYS or GNTCVEN=1
HOSPCHOS, HOSPCSYS or HOSPCVEN=1
PAINHOS, PAINSYS or PAINVEN=1
PALHOS, PALSYS or PALVEN=1
PCAHOS, PCASYS or PCAVEN=1
LINGHOS, LINGSYS or LINGVEN=1
AIRBHOS, AIRBSYS or AIRBVEN=1
WMGTHOS, WMGTSYS or WMGTVEN=1

**Geriatric Care Patient Services (9 points possible)**

<b>1 point awarded if...</b>
ALZHOS, ALZSYS or ALZVEN=1
ARTHCHOS, ARTHCSYS or ARTHCVEN=1
HOSPCHOS, HOSPCSYS or HOSPCVEN=1
PAINHOS, PAINSYS or PAINVEN=1
PALHOS, PALSYS or PALVEN=1
PCAHOS, PCASYS or PCAVEN=1
PSYGRHOS, PSYGRSYS or PSYGRVEN=1
LINGHOS, LINGSYS or LINGVEN=1
WMGTHOS, WMGTSYS or WMGTVEN=1

**Obstetrics & Gynecology Patient Services (9 points possible)**

<b>1 point awarded if...</b>
FRTCHOS, FRTCSYS or FRTCVEN=1
CICHOS, CICSYS or CICVEN=1
GNTCHOS, GNTCSYS or GNTCVEN=1
HOSPCHOS, HOSPCSYS or HOSPCVEN=1
PAINHOS, PAINSYS or PAINVEN=1
PALHOS, PALSYS or PALVEN=1
PCAHOS, PCASYS or PCAVEN=1
LINGHOS, LINGSYS or LINGVEN=1
AIRBHOS, AIRBSYS or AIRBVEN=1
WMGTHOS, WMGTSYS or WMGTVEN=1

### Neurology & Neurosurgery Patient Services (9 points possible)

1 point awarded if...
ALZHOS, ALZSYS or ALZVEN=1
GNTCHOS, GNTCSYS or GNTCVEN=1
HOSPCHOS, HOSPCSYS or HOSPCVEN=1
PAINHOS, PAINSYS or PAINVEN=1
PALHOS, PALSYS or PALVEN=1
PCAHOS, PCASYS or PCAVEN=1
LINGHOS, LINGSYS or LINGVEN=1
AIRBHOS, AIRBSYS or AIRBVEN=1
WMGTHOS, WMGTSYS or WMGTVEN=1

### Orthopedics Patient Services (7 points possible)

1 point awarded if...
ARTHCHOS, ARTHCSYS or ARTHCVEN=1
HOSPCHOS, HOSPCSYS or HOSPCVEN=1
PAINHOS, PAINSYS or PAINVEN=1
PALHOS, PALSYS or PALVEN=1
PCAHOS, PCASYS or PCAVEN=1
LINGHOS, LINGSYS or LINGVEN=1
WMGTHOS, WMGTSYS or WMGTVEN=1

### Pulmonology & Lung Surgery Patient Services (8 points possible)

1 point awarded if...
GNTCHOS, GNTCSYS or GNTCVEN=1
HOSPCHOS, HOSPCSYS or HOSPCVEN=1
PAINHOS, PAINSYS or PAINVEN=1
PALHOS, PALSYS or PALVEN=1
PCAHOS, PCASYS or PCAVEN=1
LINGHOS, LINGSYS or LINGVEN=1
AIRBHOS, AIRBSYS or AIRBVEN=1
WMGTHOS, WMGTSYS or WMGTVEN=1

## Rehabilitation Patient Services (16 points possible)

1 point awarded if...
CMNGTHOS, CMNGTSYS, or CMNGTVEN=1
ENBHOS, ENBSYS, or ENBVEN=1
LINGHOS, LINGSYS, or LINGVEN=1
NEROHOS, NEROSYS, or NEROVEN=1
OCCHSHOS, OCCHSSYS, or OCCHSVEN=1
PAINHOS, PAINSYS, or PAINVEN=1
PATRPHOS, PATRPSYS, or PATRPVEN=1
RHBOPHOS, RHBOPSYS, or RHBOPVEN=1
PSYLSHOS, PSYLSSYS, or PSYLSVEN=1
SOCWKHOS, SOCWKSYS, or SOCWKVEN=1
WMGTHOS, WMGTSYS, or WMGTVEN=1
HLTRHOS, HLTRSYS, or HLTRVEN=1
HEMOHOS, HEMOSYS, or HEMOVEN=1
EMSSHOS, EMSSSYS, or EMSSVEN=1
PATEDHOS, PATEDSYS, or PATEDVEN=1
SUPPGHOS, SUPPGSYS, or SUPPGVEN=1

## Urology Patient Services (9 points possible)

1 point awarded if...
FRTCHOS, FRTCSYS or FRTCVEN=1
GNTCHOS, GNTCSYS or GNTCVEN=1
HOSPCHOS, HOSPCSYS or HOSPCVEN=1
PAINHOS, PAINSYS or PAINVEN=1
PALHOS, PALSYS or PALVEN=1
PCAHOS, PCASYS or PCAVEN=1
LINGHOS, LINGSYS or LINGVEN=1
AIRBHOS, AIRBSYS or AIRBVEN=1
WMGTHOS, WMGTSYS or WMGTVEN=1

## ICU Specialists

1 point awarded if...
if (FTEINT>0 or TPINT>0 or INTCAR>0 or FTEMSI>0 or FTECIC>0 or FTEOIC>0) then intens=1; if FTEINT>0 and FTEINT=sum(of FTENIC FTEPIC) then intens=0;

**Appendix B**  
**2023-2024 Diagnosis Related Group (DRG)**  
**Groupings by Specialty**

## Cancer

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
M	Allogeneic bone marrow transplant	014	Include all
		016	Include all
		017	Include all
S	Craniotomy with Major Device Implant or Acute Complex Central Nervous System (CNS) Principal Diagnosis (PDX) with MCC or Chemotherapy Implant or Epilepsy with Neurostimulator	023	Include procedures: 3E0Q005
M	Nervous system neoplasms	054	Include all
		055	Include all
M	Ear, nose, mouth & throat malignancy	146	Include all
		147	Include all
		148	Include all
M	Respiratory neoplasms	180	Include all
		181	Include all
		182	Include all
M	Digestive malignancy	374	Include all
		375	Include all
		376	Include all
M	Malignancy of hepatobiliary system or pancreas	435	Include all
		436	Include all
		437	Include all
S	Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus	456	Include diagnoses: C41.2, C79.51, C79.52, C7B.03
		457	See MS-DRG 456
		458	See MS-DRG 456



**Cancer (cont.)**

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
M	Pathological fractures & musculoskelet & conn tiss malig	542	Exclude diagnoses: M30.1, M31.2, M31.30, M31.31, M48.40XA, M48.41XA, M48.42XA, M48.43XA, M48.44XA, M48.45XA, M48.46XA, M48.47XA, M48.48XA, M48.50XA, M48.51XA, M48.52XA, M48.53XA, M48.54XA, M48.55XA, M48.56XA, M48.57XA, M48.58XA, M80.00XA, M80.011A, M80.012A, M80.019A, M80.021A, M80.022A, M80.029A, M80.031A, M80.032A, M80.039A, M80.041A, M80.042A, M80.049A, M80.051A, M80.052A, M80.059A, M80.061A, M80.062A, M80.069A, M80.071A, M80.072A, M80.079A, M80.08XA, M80.80XA, M80.811A, M80.812A, M80.819A, M80.821A, M80.822A, M80.829A, M80.831A, M80.832A, M80.839A, M80.841A, M80.842A, M80.849A, M80.851A, M80.852A, M80.859A, M80.861A, M80.862A, M80.869A, M80.871A, M80.872A, M80.879A, M80.88XA, M84.30XA, M84.311A, M84.312A, M84.319A, M84.321A, M84.322A, M84.329A, M84.331A, M84.332A, M84.333A, M84.334A, M84.339A, M84.341A, M84.342A, M84.343A, M84.344A, M84.345A, M84.346A, M84.350A, M84.351A, M84.352A, M84.353A, M84.359A, M84.361A, M84.362A, M84.363A, M84.364A, M84.369A, M84.371A, M84.372A, M84.373A, M84.374A, M84.375A, M84.376A, M84.377A, M84.378A, M84.379A, M84.38XA, M84.40XA, M84.411A, M84.412A, M84.419A, M84.421A, M84.422A, M84.429A, M84.431A, M84.432A, M84.433A, M84.434A, M84.439A, M84.441A, M84.442A, M84.443A, M84.444A, M84.445A, M84.446A, M84.451A, M84.452A, M84.453A, M84.454A, M84.459A, M84.461A, M84.462A, M84.463A, M84.464A, M84.469A, M84.471A, M84.472A, M84.473A, M84.474A, M84.475A, M84.476A, M84.477A, M84.478A, M84.479A, M84.48XA, M84.50XA, M84.511A, M84.512A, M84.519A, M84.521A, M84.522A, M84.529A, M84.531A, M84.532A, M84.533A, M84.534A, M84.539A, M84.541A, M84.542A, M84.549A, M84.550A, M84.551A, M84.552A, M84.553A, M84.559A, M84.561A, M84.562A, M84.563A, M84.564A, M84.569A, M84.571A, M84.572A, M84.573A, M84.574A, M84.575A, M84.576A, M84.58XA, M84.60XA, M84.611A, M84.612A, M84.619A, M84.621A, M84.622A, M84.629A, M84.631A, M84.632A, M84.633A, M84.634A, M84.639A, M84.641A, M84.642A, M84.649A, M84.650A, M84.651A, M84.652A, M84.653A, M84.659A, M84.661A, M84.662A, M84.663A, M84.664A, M84.669A, M84.671A, M84.672A, M84.673A, M84.674A, M84.675A, M84.676A, M84.68XA, M84.750A, M84.751A, M84.752A, M84.753A, M84.754A, M84.755A, M84.756A, M84.757A, M84.758A, M84.759A
		543	See MS-DRG 542
		544	See MS-DRG 542
S	Mastectomy for malignancy	582	Include all
		583	Include all

### Cancer (cont.)

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
M	Major skin disorders	595	Include diagnoses: C43.0, C43.20, C43.21, C43.22, C43.30, C43.31, C43.39, C43.4, C43.51, C43.52, C43.59, C43.60, C43.61, C43.62, C43.70, C43.71, C43.72, C43.8, C43.9, C4A.0, C4A.10, C4A.11, C4A.12, C4A.20, C4A.21, C4A.22, C4A.30, C4A.31, C4A.39, C4A.4, C4A.51, C4A.52, C4A.59, C4A.60, C4A.61, C4A.62, C4A.70, C4A.71, C4A.72, C4A.8, C4A.9, D03.0, D03.20, D03.21, D03.22, D03.30, D03.39, D03.4, D03.51, D03.52, D03.59, D03.60, D03.61, D03.62, D03.70, D03.71, D03.72, D03.8, D03.9
		596	See MS-DRG 595
M	Malignant breast disorders	597	Include all
		598	Include all
		599	Include all
S	Kidney & ureter procedures for neoplasm	656	Include all
		657	Include all
		658	Include all
M	Kidney & urinary tract neoplasms	686	Include all
		687	Include all
		688	Include all
S	Other male reproductive system O.R. proc for malignancy	715	Include all
		716	Include all
M	Malignancy, male reproductive system	722	Include all
		723	Include all
		724	Include all
S	Uterine & adnexa proc for ovarian or adnexal malignancy	736	Include all
		737	Include all
		738	Include all
S	Uterine,adnexa proc for non-ovarian/adnexal malig	739	Include all
		740	Include all
		741	Include all
M	Malignancy, female reproductive system	754	Include all
		755	Include all
		756	Include all
M	Major hematol/immun diag exc sickle cell crisis & coagul	808	Include diagnoses: T86.00, T86.01, T86.02, T86.03, T86.09
		809	See MS-DRG 808
		810	See MS-DRG 808
S	Lymphoma & leukemia w major O.R. procedure	820	Include all
		821	Include all
		822	Include all
S	Lymphoma & non-acute leukemia w other O.R. proc	823	Include all
		824	Include all
		825	Include all

### Cancer (cont.)

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Myeloprolif disord or poorly diff neopl w maj O.R. proc	826	Exclude diagnoses: Z85.00, Z85.01, Z85.020, Z85.028, Z85.030, Z85.038, Z85.040, Z85.048, Z85.05, Z85.060, Z85.068, Z85.07, Z85.09, Z85.110, Z85.118, Z85.12, Z85.20, Z85.21, Z85.22, Z85.230, Z85.238, Z85.29, Z85.3, Z85.40, Z85.41, Z85.42, Z85.43, Z85.44, Z85.45, Z85.46, Z85.47, Z85.48, Z85.49, Z85.50, Z85.51, Z85.520, Z85.528, Z85.53, Z85.54, Z85.59, Z85.6, Z85.71, Z85.72, Z85.79, Z85.810, Z85.818, Z85.819, Z85.820, Z85.821, Z85.828, Z85.830, Z85.831, Z85.840, Z85.841, Z85.848, Z85.850, Z85.858, Z85.89, Z85.9, Z87.410
		827	See MS-DRG 826
		828	See MS-DRG 826
		829	See MS-DRG 826
S	Myeloprolif disord or poorly diff neopl w other O.R. proc	830	See MS-DRG 826
		834	Include all
M	Acute leukemia w/o major O.R. procedure	835	Include all
		836	Include all
		837	Include all
M	Chemo w acute leukemia as sdx or w high dose chemo agent	838	Include all
		839	Include all
		840	Include all
M	Lymphoma & non-acute leukemia	841	Include all
		842	Include all
		843	See MS-DRG 826
M	Other myeloprolif dis or poorly diff neopl diag	844	See MS-DRG 826
		845	See MS-DRG 826
		846	Include all
M	Chemotherapy w/o acute leukemia as secondary diagnosis	847	Include all
		848	Include all

### Cardiology, Heart & Vascular Surgery\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Heart transplant or implant of heart assist system	001	Include all
		002	Include all
S	Major chest procedures	163	Include procedures: 025N0ZZ, 025N3ZZ, 025N4ZZ, 025P0ZZ, 025P3ZZ, 025P4ZZ, 025Q0ZZ, 025Q3ZZ, 025Q4ZZ, 025R0ZZ, 025R3ZZ, 025R4ZZ, 025S0ZZ, 025S3ZZ, 025S4ZZ, 025T0ZZ, 025T3ZZ, 025T4ZZ, 025V0ZZ, 025V3ZZ, 025V4ZZ, 025W0ZZ, 025W3ZZ, 025W4ZZ, 025X0ZZ, 025X3ZZ, 025X4ZZ, 02BN0ZX, 02BN0ZZ, 02BN3ZX, 02BN3ZZ, 02BN4ZX, 02BN4ZZ, 02BP0ZZ, 02BP3ZZ, 02BP4ZZ, 02BQ0ZZ, 02BQ3ZZ, 02BQ4ZZ, 02BR0ZZ, 02BR3ZZ, 02BR4ZZ, 02BS0ZZ, 02BS3ZZ, 02BS4ZZ, 02BT0ZZ, 02BT3ZZ, 02BT4ZZ, 02BV0ZZ, 02BV3ZZ, 02BV4ZZ, 02BW3ZZ, 02BX3ZZ, 02CN0ZZ, 02CN3ZZ, 02CN4ZZ, 02CP0ZZ, 02CP3ZZ, 02CP4ZZ, 02CQ0ZZ, 02CQ3ZZ, 02CQ4ZZ, 02CR0ZZ, 02CR3ZZ, 02CR4ZZ, 02CS0ZZ, 02CS3ZZ, 02CS4ZZ, 02CT0ZZ, 02CT3ZZ, 02CT4ZZ, 02CV0ZZ, 02CV3ZZ, 02CV4ZZ, 02HN00Z, 02HN02Z, 02HN30Z, 02HN40Z, 02HN42Z, 02NN0ZZ, 02NN3ZZ, 02NN4ZZ, 02QA0ZZ, 02RP07Z, 02RP08Z, 02RP0JZ, 02RP0KZ, 02RP47Z, 02RP48Z, 02RP4JZ, 02RP4KZ, 02RQ07Z, 02RQ08Z, 02RQ0JZ, 02RQ0KZ, 02RQ47Z, 02RQ48Z, 02RQ4JZ, 02RQ4KZ, 02RR07Z, 02RR08Z, 02RR0JZ, 02RR0KZ, 02RR47Z, 02RR48Z, 02RR4JZ, 02RR4KZ, 02RS07Z, 02RS08Z, 02RS0JZ, 02RS0KZ, 02RS47Z, 02RS48Z, 02RS4JZ, 02RS4KZ, 02RT07Z, 02RT08Z, 02RT0JZ, 02RT0KZ, 02RT47Z, 02RT48Z, 02RT4JZ, 02RT4KZ, 02RV07Z, 02RV08Z, 02RV0JZ, 02RV0KZ, 02RV47Z, 02RV48Z, 02RV4JZ, 02RV4KZ, 02RW07Z, 02RW08Z, 02RW0JZ, 02RW0KZ, 02RW47Z, 02RW48Z, 02RW4JZ, 02RW4KZ, 02RX07Z, 02RX08Z, 02RX0JZ, 02RX0KZ, 02RX47Z, 02RX48Z, 02RX4JZ, 02RX4KZ, 02TN0ZZ, 02TN3ZZ, 02TN4ZZ, 03500ZZ, 03503ZZ, 03504ZZ, 03510ZZ, 03513ZZ, 03514ZZ, 03520ZZ, 03523ZZ, 03524ZZ, 03530ZZ, 03533ZZ, 03534ZZ, 03540ZZ, 03543ZZ, 03544ZZ, 03B00ZZ, 03B03ZZ, 03B04ZZ, 03B10ZZ, 03B13ZZ, 03B14ZZ, 03B20ZZ, 03B23ZZ, 03B24ZZ, 03B30ZZ, 03B33ZZ, 03B34ZZ, 03B40ZZ, 03B43ZZ, 03B44ZZ, 03C00Z6, 03C00ZZ, 03C03Z6, 03C03ZZ, 03C04Z6, 03C04ZZ, 03C10Z6, 03C10ZZ, 03C13Z6, 03C13ZZ, 03C14Z6, 03C14ZZ, 03C20Z6, 03C20ZZ, 03C23Z6, 03C23ZZ, 03C24Z6, 03C24ZZ, 03C30Z6, 03C30ZZ, 03C33Z6, 03C33ZZ, 03C34Z6, 03C34ZZ, 03C40Z6, 03C40ZZ, 03C43Z6, 03C43ZZ, 03C44Z6, 03C44ZZ, 03L20CZ, 03L20DZ, 03L20ZZ, 03L23CZ, 03L23DZ, 03L23ZZ, 03L24CZ, 03L24DZ, 03L24ZZ, 03L30CZ, 03L30DZ, 03L30ZZ, 03L33CZ, 03L33DZ, 03L33ZZ, 03L34CZ, 03L34DZ, 03L34ZZ, 03L40CZ, 03L40DZ, 03L40ZZ, 03L43CZ, 03L43DZ, 03L43ZZ, 03L44CZ, 03L44DZ, 03L44ZZ, 03R007Z, 03R00JZ, 03R00KZ, 03R047Z, 03R04JZ, 03R04KZ, 03R107Z, 03R10JZ, 03R10KZ, 03R147Z, 03R14JZ, 03R14KZ, 03R207Z, 03R20JZ, 03R20KZ, 03R247Z, 03R24JZ, 03R24KZ, 03R307Z, 03R30JZ, 03R30KZ, 03R347Z, 03R34JZ, 03R34KZ, 03R407Z, 03R40JZ, 03R40KZ, 03R447Z, 03R44JZ, 03R44KZ, 05500ZZ, 05503ZZ, 05504ZZ, 05510ZZ, 05513ZZ,

\*Exclude principal diagnosis: T8021 (central-line-associated bloodstream infections)

**Cardiology, Heart & Vascular Surgery (cont.)\***

Medical/ Surgical	DRG Title	MS- DRG	ICD-10			
S	Major chest procedures (cont.)	163 (cont.)	05514ZZ, 05530ZZ, 05533ZZ, 05534ZZ, 05540ZZ, 05543ZZ, 05544ZZ, 05550ZZ, 05553ZZ, 05554ZZ, 05560ZZ, 05563ZZ, 05564ZZ, 05B00ZZ, 05B03ZZ, 05B04ZZ, 05B10ZZ, 05B13ZZ, 05B14ZZ, 05B30ZZ, 05B33ZZ, 05B34ZZ, 05B40ZZ, 05B43ZZ, 05B44ZZ, 05B50ZZ, 05B53ZZ, 05B54ZZ, 05B60ZZ, 05B63ZZ, 05B64ZZ, 05C00ZZ, 05C04ZZ, 05C10ZZ, 05C14ZZ, 05C30ZZ, 05C34ZZ, 05C40ZZ, 05C44ZZ, 05C50ZZ, 05C54ZZ, 05C60ZZ, 05C64ZZ, 05L30CZ, 05L30DZ, 05L30ZZ, 05L33CZ, 05L33DZ, 05L33ZZ, 05L34CZ, 05L34DZ, 05L34ZZ, 05L40CZ, 05L40DZ, 05L40ZZ, 05L43CZ, 05L43DZ, 05L43ZZ, 05L44CZ, 05L44DZ, 05L44ZZ, 05L50CZ, 05L50DZ, 05L50ZZ, 05L53CZ, 05L53DZ, 05L53ZZ, 05L54CZ, 05L54DZ, 05L54ZZ, 05L60CZ, 05L60DZ, 05L60ZZ, 05L63CZ, 05L63DZ, 05L63ZZ, 05L64CZ, 05L64DZ, 05L64ZZ, 05R007Z, 05R00JZ, 05R00KZ, 05R047Z, 05R04JZ, 05R04KZ, 05R107Z, 05R10JZ, 05R10KZ, 05R147Z, 05R14JZ, 05R14KZ, 05R307Z, 05R30JZ, 05R30KZ, 05R347Z, 05R34JZ, 05R34KZ, 05R407Z, 05R40JZ, 05R40KZ, 05R447Z, 05R44JZ, 05R44KZ, 05R507Z, 05R50JZ, 05R50KZ, 05R547Z, 05R54JZ, 05R54KZ, 05R607Z, 05R60JZ, 05R60KZ, 05R647Z, 05R64JZ, 05R64KZ, 0W9D00Z, 0W9D00X, 0W9D00Z, 0WCD0ZZ, 0WCD3ZZ, 0WCD4ZZ, 0WHD03Z, 0WHD0YZ, 0WHD33Z, 0WHD3YZ, 0WHD43Z, 0WHD4YZ, 0WPD00Z, 0WPD01Z, 0WPD03Z, 0WPD0YZ, 0WPD30Z, 0WPD31Z, 0WPD33Z, 0WPD3YZ, 0WPD40Z, 0WPD41Z, 0WPD43Z, 0WPD4YZ, 0WWD00Z, 0WWD01Z, 0WWD03Z, 0WWD0YZ, 0WWD30Z, 0WWD31Z, 0WWD33Z, 0WWD3YZ, 0WWD40Z, 0WWD41Z, 0WWD43Z, 0WWD4YZ			
			164	See MS-DRG: 163		
			165	See MS-DRG: 163		
			S	Other heart assist system implant	215	Include all
			S	Cardiac valve & oth maj cardiothoracic proc w card cath	216	Include all
					217	Include all
					218	Include all
			S	Cardiac valve & oth maj cardiothoracic proc w/o card cath	219	Include all
					220	Include all
					221	Include all
			S	Cardiac defib implant w cardiac cath w AMI/HF/shock	222	Include all
					223	Include all
			S	Cardiac defib implant w cardiac cath w/o AMI/HF/shock	224	Include all
					225	Include all
			S	Cardiac defibrillator implant w/o cardiac cath	226	Include all
227	Include all					
S	Other cardiothoracic procedures	228	Include all			
		229	Include all			
		230	Include all			
S	Coronary bypass w PTCA	231	Include all			
		232	Include all			
S	Coronary bypass w cardiac cath	233	Include all			
		234	Include all			
S	Coronary bypass w/o cardiac cath	235	Include all			
		236	Include all			

\*Exclude principal diagnosis: T8021 (central-line-associated bloodstream infections)

### Cardiology, Heart & Vascular Surgery (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Permanent cardiac pacemaker implant	242	Include all
		243	Include all
		244	Include all
S	AICD generator procedures	245	Include all
S	Perc cardiovasc proc w drug-eluting stent	246	Include all
		247	Include all
S	Perc cardiovasc proc w non-drug-eluting stent	248	Include all
		249	Include all
S	Perc cardiovasc proc w/o coronary artery stent	250	Include all
		251	Include all
S	Other vascular procedures	252	Include all
		253	Include all
		254	Include all
S	Cardiac pacemaker revision except device replacement	260	Include all
		261	Include all
		262	Include all
S	ACID lead procedures	265	Include all
S	Endovascular cardiac valve replacement	266	Include all
		267	Include all
S	Aortic and heart assist procedures except pulsation balloon	268	Include all
		269	Include all
S	Other major cardiovascular procedures	270	Include all
		271	Include all
		272	Include all
S	Percutaneous intracardiac procedures	273	Include all
		274	Include all
M	Acute myocardial infarction, discharged alive	280	Include all
		281	Include all
		282	Include all
M	Acute myocardial infarction, expired	283	Include all
		284	Include all
		285	Include all
M	Circulatory disorders except AMI, w card cath	286	Include all
		287	Include all
M	Acute & subacute endocarditis	288	Include all
		289	Include all
		290	Include all
M	Heart failure & shock	291	Include all
		292	Include all
		293	Include all
M	Cardiac congenital & valvular disorders	306	Include all
		308	Include all
		309	Include all
M	Other circulatory system diagnoses	314	Include all
		315	Include all
		316	Include all
S	Other endovascular cardiac valve procedures	319	Include all
		320	Include all

\*Exclude principal diagnosis: T8021 (central-line-associated bloodstream infections)

## Diabetes & Endocrinology

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Adrenal & pituitary procedures	614	Include all
		615	Include all
S	O.R. procedures for obesity	619	Include all
		620	Include all
		621	Include all
S	Skin grafts & wound debrid for endoc, nutrit & metab dis	622	Include all
		623	Include all
		624	Include all
S	Thyroid, parathyroid & thyroglossal procedures	625	Include all
		626	Include all
		627	Include all
S	Other endocrine, nutrit & metab O.R. proc	628	Include all
		629	Include all
		630	Include all
M	Diabetes	637	Include all
		638	Include all
		639	Include all
M	Misc disorders of nutrition, metabolism, fluids/electrolyes	640	Exclude diagnosis: P92.6
M	Endocrine disorders	643	Include all
		644	Include all

## Ear, Nose & Throat

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Tracheostomy for face,mouth & neck diagnoses	011	Include all
		012	Include all
		013	Include all
S	Major head & neck procedures	129	Include all
		130	Include all
S	Cranial/Facial Procedures	131	Include all
		132	Include all
S	Other ear, nose, mouth & throat O.R. procedures	133	Include all
		134	Include all
S	Salivary gland procedures	139	Include all
M	Ear, nose, mouth & throat malignancy	146	Include all
		147	Include all
		148	Include all
M	Otitis media & URI	152	Include all
M	Other ear, nose, mouth and throat diagnosis	154	Include all
		155	Include all
		156	Include all

## Gastroenterology & GI Surgery

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Stomach, esophageal & duodenal proc	326	Include all
		327	Include all
		328	Include all
S	Major small & large bowel procedures	329	Include all
		330	Include all
		331	Include all
S	Rectal resection	332	Include all
		333	Include all
		334	Include all
S	Peritoneal adhesiolysis	335	Include all
		336	Include all
		337	Include all
S	Minor small & large bowel procedures	344	Include procedures: 0D580ZZ, 0D583ZZ, 0D584ZZ, 0D587ZZ, 0D588ZZ, 0D5A0ZZ, 0D5A3ZZ, 0D5A4ZZ, 0D5A7ZZ, 0D5A8ZZ, 0D5B0ZZ, 0D5B3ZZ, 0D5B4ZZ, 0D5B7ZZ, 0D5B8ZZ, 0D5C0ZZ, 0D5C3ZZ, 0D5C4ZZ, 0D5C7ZZ, 0D5C8ZZ, 0D5E0ZZ, 0D5E3ZZ, 0D5E7ZZ, 0D5F0ZZ, 0D5F3ZZ, 0D5F7ZZ, 0D5G0ZZ, 0D5G3ZZ, 0D5G7ZZ, 0D5H0ZZ, 0D5H3ZZ, 0D5H7ZZ, 0D5K0ZZ, 0D5K3ZZ, 0D5K7ZZ, 0D5L0ZZ, 0D5L3ZZ, 0D5L7ZZ, 0D5M0ZZ, 0D5M3ZZ, 0D5M7ZZ, 0D5N0ZZ, 0D5N3ZZ, 0D5N7ZZ, 0D9800Z, 0D980ZX, 0D980ZZ, 0D9840Z, 0D984ZZ, 0D9870Z, 0D987ZZ, 0D9880Z, 0D988ZZ, 0D990ZX, 0D9A00Z, 0D9A0ZX, 0D9A0ZZ, 0D9A40Z, 0D9A4ZZ, 0D9A7ZZ, 0D9A8ZZ, 0D9B00Z, 0D9B0ZX, 0D9B0ZZ, 0D9B40Z, 0D9B4ZZ, 0D9B7ZZ, 0D9B8ZZ, 0D9C00Z, 0D9C0ZX, 0D9C0ZZ, 0D9C40Z, 0D9C4ZZ, 0D9C70Z, 0D9C7ZZ, 0D9C80Z, 0D9C8ZZ, 0D9E00Z, 0D9E0ZX, 0D9E0ZZ, 0D9E40Z, 0D9E4ZZ, 0D9E7ZZ, 0D9E8ZZ, 0D9F00Z, 0D9F0ZX, 0D9F0ZZ, 0D9F40Z, 0D9F4ZZ, 0D9F7ZZ, 0D9F8ZZ, 0D9G00Z, 0D9G0ZX, 0D9G0ZZ, 0D9G40Z, 0D9G4ZZ, 0D9G7ZZ, 0D9G8ZZ, 0D9H00Z, 0D9H0ZX, 0D9H0ZZ, 0D9H40Z, 0D9H4ZZ, 0D9H7ZZ, 0D9H8ZZ, 0D9K00Z, 0D9K0ZX, 0D9K0ZZ, 0D9K40Z, 0D9K4ZZ, 0D9K7ZZ, 0D9K8ZZ, 0D9L00Z, 0D9L0ZX, 0D9L0ZZ, 0D9L40Z, 0D9L4ZZ, 0D9L7ZZ, 0D9L8ZZ, 0D9M00Z, 0D9M0ZX, 0D9M0ZZ, 0D9M40Z, 0D9M4ZZ, 0D9M7ZZ, 0D9M8ZZ, 0D9N00Z, 0D9N0ZX, 0D9N0ZZ, 0D9N40Z, 0D9N4ZZ, 0D9N7ZZ, 0D9N8ZZ, 0D9P0ZX, 0D9P0ZZ, 0D9P4ZZ, 0D9P7ZZ, 0D9P8ZZ, 0DB80ZX, 0DB90ZX, 0DBA0ZX, 0DBB0ZX, 0DBC0ZX, 0DBE0ZX, 0DBF0ZX, 0DBG0ZX, 0DBH0ZX, 0DBK0ZX, 0DBL0ZX, 0DBM0ZX, 0DBN0ZX, 0DBP0ZX, 0DC80ZZ, 0DC83ZZ, 0DC84ZZ, 0DCA0ZZ, 0DCA3ZZ, 0DCA4ZZ, 0DCB0ZZ, 0DCB3ZZ, 0DCB4ZZ, 0DCC0ZZ, 0DCC3ZZ, 0DCC4ZZ, 0DCE0ZZ, 0DCE3ZZ, 0DCE4ZZ, 0DCF0ZZ, 0DCF3ZZ, 0DCF4ZZ, 0DCG0ZZ, 0DCG3ZZ, 0DCG4ZZ, 0DCH0ZZ, 0DCH3ZZ, 0DCH4ZZ, 0DCK0ZZ, 0DCK3ZZ, 0DCK4ZZ, 0DCL0ZZ, 0DCL3ZZ, 0DCL4ZZ, 0DCM0ZZ, 0DCM3ZZ, 0DCM4ZZ, 0DCN0ZZ, 0DCN3ZZ, 0DCN4ZZ, 0DCP0ZZ, 0DCP3ZZ, 0DCP4ZZ, 0DH802Z, 0DH803Z, 0DH832Z, 0DH833Z, 0DH842Z, 0DH843Z, 0DHA02Z, 0DHA03Z, 0DHA32Z, 0DHA33Z, 0DHA42Z, 0DHA43Z, 0DHB02Z, 0DHB03Z, 0DHB32Z, 0DHB33Z, 0DHB42Z, 0DHB43Z.



**Gastroenterology & GI Surgery (cont.)**

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Minor small & large bowel procedures (cont.)	344 (cont.)	0DP000Z, 0DP002Z, 0DP003Z, 0DP007Z, 0DP00CZ, 0DP00DZ, 0DP00JZ, 0DP00KZ, 0DP00UZ, 0DP00YZ, 0DP030Z, 0DP032Z, 0DP033Z, 0DP037Z, 0DP03CZ, 0DP03DZ, 0DP03JZ, 0DP03KZ, 0DP03UZ, 0DP03YZ, 0DP040Z, 0DP042Z, 0DP043Z, 0DP047Z, 0DP04CZ, 0DP04DZ, 0DP04JZ, 0DP04KZ, 0DP04UZ, 0DP077Z, 0DP07CZ, 0DP07JZ, 0DP07KZ, 0DP087Z, 0DP08CZ, 0DP08JZ, 0DP08KZ, 0DPD00Z, 0DPD02Z, 0DPD03Z, 0DPD07Z, 0DPD0CZ, 0DPD0DZ, 0DPD0JZ, 0DPD0KZ, 0DPD0UZ, 0DPD0YZ, 0DPD30Z, 0DPD32Z, 0DPD33Z, 0DPD37Z, 0DPD3CZ, 0DPD3DZ, 0DPD3JZ, 0DPD3KZ, 0DPD3UZ, 0DPD40Z, 0DPD42Z, 0DPD43Z, 0DPD47Z, 0DPD4CZ, 0DPD4DZ, 0DPD4JZ, 0DPD4KZ, 0DPD4UZ, 0DPD77Z, 0DPD7CZ, 0DPD7JZ, 0DPD7KZ, 0DPD87Z, 0DPD8CZ, 0DPD8JZ, 0DPD8KZ, 0DPP01Z, 0DPP31Z, 0DPP41Z, 0DS90ZZ, 0DS94ZZ, 0DS97ZZ, 0DS98ZZ, 0DSA0ZZ, 0DSA4ZZ, 0DSA7ZZ, 0DSA8ZZ, 0DSK0ZZ, 0DSK4ZZ, 0DSK7ZZ, 0DSK8ZZ, 0DSL0ZZ, 0DSL4ZZ, 0DSL7ZZ, 0DSL8ZZ, 0DSM0ZZ, 0DSM4ZZ, 0DSM7ZZ, 0DSM8ZZ, 0DSN0ZZ, 0DSN4ZZ, 0DSN7ZZ, 0DSN8ZZ, 0DW000Z, 0DW002Z, 0DW003Z, 0DW007Z, 0DW00CZ, 0DW00DZ, 0DW00JZ, 0DW00KZ, 0DW00UZ, 0DW00YZ, 0DW030Z, 0DW032Z, 0DW033Z, 0DW037Z, 0DW03CZ, 0DW03DZ, 0DW03JZ, 0DW03KZ, 0DW03UZ, 0DW040Z, 0DW042Z, 0DW043Z, 0DW047Z, 0DW04CZ, 0DW04DZ, 0DW04JZ, 0DW04KZ, 0DW04YZ, 0DW070Z, 0DW072Z, 0DW073Z, 0DW077Z, 0DW07CZ, 0DW07DZ, 0DW07JZ, 0DW07KZ, 0DW07UZ, 0DW080Z, 0DW082Z, 0DW083Z, 0DW087Z, 0DW08CZ, 0DW08DZ, 0DW08JZ, 0DW08KZ, 0DW08UZ, 0DWD00Z, 0DWD02Z, 0DWD03Z, 0DWD07Z, 0DWD0CZ, 0DWD0DZ, 0DWD0JZ, 0DWD0KZ, 0DWD0UZ, 0DWD0YZ, 0DWD30Z, 0DWD32Z, 0DWD33Z, 0DWD37Z, 0DWD3CZ, 0DWD3DZ, 0DWD3JZ, 0DWD3KZ, 0DWD3UZ, 0DWD40Z, 0DWD42Z, 0DWD43Z, 0DWD47Z, 0DWD4CZ, 0DWD4DZ, 0DWD4JZ, 0DWD4KZ, 0DWD4UZ, 0DWD4YZ, 0DWD70Z, 0DWD72Z, 0DWD73Z, 0DWD77Z, 0DWD7CZ, 0DWD7DZ, 0DWD7JZ, 0DWD7KZ, 0DWD7UZ, 0DWD80Z, 0DWD82Z, 0DWD83Z, 0DWD87Z, 0DWD8CZ, 0DWD8DZ, 0DWD8JZ, 0DWD8KZ, 0DWD8UZ, 0TQB0ZZ, 0TQB3ZZ, 0TQB4ZZ, 0TQB7ZZ, 0TQB8ZZ, 0WQFXZ2
		345	See MS-DRG 344
		346	See MS-DRG 344
S	Other digestive system O.R. procedures	356	Include all
		357	Include all
		358	Include all
M	Major esophageal disorders	368	Include all
		369	Include all
		370	Include all
M	Major gastrointestinal disorders & peritoneal infections	371	Include all
		372	Include all
		373	Include all

### Gastroenterology & GI Surgery (cont.)

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
M	Digestive malignancy	374	Include all
		375	Include all
		376	Include all
M	G.I. hemorrhage	377	Include all
		378	Include all
		379	Include all
M	Complicated peptic ulcer	380	Include all
		381	Include all
		382	Include all
M	Uncomplicated peptic ulcer	383	Include all
M	Inflammatory bowel disease	385	Include all
		386	Include all
		387	Include all
M	G.I. obstruction	388	Include all
		389	Include all
M	Esophagitis, gastroent & misc digest disorders	391	Include all
M	Other digestive system diagnoses	393	Include all
		394	Include all
S	Pancreas, liver & shunt procedures	405	Include all
		406	Include all
		407	Include all
S	Biliary tract proc except only cholecyst w or w/o c.d.e.	408	Include all
		409	Include all
		410	Include all
S	Cholecystectomy w c.d.e.	411	Include all
		412	Include all
		413	Include all
S	Cholecystectomy except by laparoscope w/o c.d.e.	414	Include all
		415	Include all
S	Laparoscopic cholecystectomy w/o c.d.e.	417	Include all
		418	Include all
S	Hepatobiliary diagnostic procedures	420	Include all
		421	Include all
		422	Include all
S	Other hepatobiliary or pancreas O.R. procedures	423	Include all
		424	Include all
		425	Include all
M	Cirrhosis & alcoholic hepatitis	432	Include all
		433	Include all
		434	Include all
M	Malignancy of hepatobiliary system or pancreas	435	Include all
		436	Include all
		437	Include all
M	Disorders of pancreas except malignancy	438	Include all
		439	Include all
		440	Include all
M	Disorders of liver except malig,cirr,alc hepa	441	Exclude diagnosis: R94.5
		442	See MS-DRG 441

## Geriatrics\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Heart transplant or implant of heart assist system	001	Include all
		002	Include all
S	ECMO or trach w MV 96+ hrs or PDX exc face, mouth & neck w maj O.R.	003	Include all
S	Trach w MV 96+ hrs or PDX exc face, mouth & neck w/o maj O.R.	004	Include all
S	Liver transplant	005	Include all
		006	Include all
S	Lung transplant	007	Include all
S	Simultaneous pancreas/kidney transplant	008	Include all
S	Pancreas transplant	010	Include all
S	Tracheostomy for face, mouth & neck diagnoses	011	Include all
		012	Include all
		013	Include all
S	Allogeneic bone marrow transplant	014	Include all
		016	Include all
		017	Include all
S	Intracranial vascular procedures w PDX hemorrhage	020	Include all
		021	Include all
		022	Include all
S	Cranio w major dev impl/acute complex CNS PDX	023	Include all
		024	Include all
S	Craniotomy & endovascular intracranial procedures	025	Include all
		026	Include all
		027	Include all
S	Spinal procedures	028	Include all
		029	Include all
		030	Include all
S	Ventricular shunt procedures	031	Include all
		032	Include all
		033	Include all
S	Carotid artery stent procedure	034	Include all
		035	Include all
		036	Include all
S	Extracranial procedures	037	Include all
		038	Include all
		039	Include all
S	Periph & cranial nerve & other nerv syst proc	040	Include all
		041	Include all
		042	Include all
M	Spinal disorders & injuries	052	Include all
		053	Include all
M	Nervous system neoplasms	054	Include all
		055	Include all
M	Degenerative nervous system disorders	056	Include all
		057	Include all

\*Exclude principal diagnoses:

- T8021 (central-line-associated bloodstream infections)
- T8351 (catheter-associated urinary tract infections)

### Geriatrics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
M	Multiple sclerosis & cerebellar ataxia	058	Include all
		059	Include all
		060	Include all
M	Ischemic Stroke, Precerebral Occlusion or Transient Ischemia with Thrombolytic Agent	061	Include all
		062	Include all
		063	Include all
M	Intracranial hemorrhage or cerebral infarction	064	Include all
		065	Include all
		066	Include all
M	Nonspecific cva & precerebral occlusion w/o infarct	067	Include all
		068	Include all
M	Transient ischemia	069	Include all
M	Nonspecific cerebrovascular disorders	070	Include all
		071	Include all
		072	Include all
M	Cranial & peripheral nerve disorders	073	Include all
		074	Include all
M	Viral meningitis	075	Include all
		076	Include all
M	Hypertensive encephalopathy	077	Include all
		078	Include all
		079	Include all
M	Nontraumatic stupor & coma	080	Include all
		081	Include all
M	Traumatic stupor & coma, coma >1 hr	082	Include all
		083	Include all
		084	Include all
M	Traumatic stupor & coma, coma <1 hr	085	Include all
		086	Include all
		087	Include all
M	Concussion	088	Include all
		089	Include all
		090	Include all
M	Other disorders of nervous system	091	Include all
		092	Include all
		093	Include all
M	Bacterial & tuberculous infections of nervous system	094	Include all
		095	Include all
		096	Include all
M	Non-bacterial infect of nervous sys exc viral meningitis	097	Include all
		098	Include all
		099	Include all
M	Seizures	100	Include all
		101	Include all
M	Headaches	102	Include all
		103	Include all

\*Exclude principal diagnoses:

- T8021 (central-line-associated bloodstream infections)
- T8351 (catheter-associated urinary tract infections)

### Geriatrics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Orbital procedures	113	Include all
		114	Include all
S	Extraocular procedures except orbit	115	Include all
S	Intraocular procedures	116	Include all
		117	Include all
M	Acute major eye infections	121	Include all
		122	Include all
M	Neurological eye disorders	123	Include all
M	Other disorders of the eye	124	Include all
		125	Include all
S	Major head & neck procedures	129	Include all
		130	Include all
S	Cranial/facial procedures	131	Include all
		132	Include all
S	Other ear, nose, mouth & throat O.R. procedures	133	Include all
		134	Include all
S	Sinus & mastoid procedures	135	Include all
		136	Include all
S	Mouth procedures	137	Include all
		138	Include all
S	Salivary gland procedures	139	Include all
M	Ear, nose, mouth & throat malignancy	146	Include all
		147	Include all
		148	Include all
M	Dysequilibrium	149	Include all
M	Epistaxis	150	Include all
		151	Include all
M	Otitis media & URI	152	Include all
		153	Include all
M	Other Ear, Nose, Mouth, and Throat Diagnoses	154	Include all
		155	Include all
		156	Include all
M	Dental & Oral Diseases	157	Include all
		158	Include all
		159	Include all
S	Major chest procedures	163	Include all
		164	Include all
		165	Include all
S	Other resp system O.R. procedures	166	Include all
		167	Include all
		168	Include all
M	Pulmonary embolism	175	Include all
		176	Include all
M	Respiratory infections & inflammations	177	Include all
		178	Include all
		179	Include all

\*Exclude principal diagnoses:

- T8021 (central-line-associated bloodstream infections)
- T8351 (catheter-associated urinary tract infections)

### Geriatrics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
M	Respiratory neoplasms	180	Include all
		181	Include all
		182	Include all
M	Major chest trauma	183	Include all
		184	Include all
		185	Include all
M	Pleural effusion	186	Include all
		187	Include all
		188	Include all
M	Pulmonary edema & respiratory failure	189	Include all
M	Chronic obstructive pulmonary disease	190	Include all
		191	Include all
		192	Include all
M	Simple pneumonia & pleurisy	193	Include all
		194	Include all
		195	Include all
M	Interstitial lung disease	196	Include all
		197	Include all
		198	Include all
M	Pneumothorax	199	Include all
		200	Include all
		201	Include all
M	Bronchitis & asthma	202	Include all
		203	Include all
M	Respiratory signs & symptoms	204	Include all
M	Other respiratory system diagnoses	205	Include all
		206	Include all
M	Respiratory system diagnosis w ventilator support	207	Include all
		208	Include all
S	Other heart assist system implant	215	Include all
S	Cardiac valve & oth maj cardiothoracic proc w card cath	216	Include all
		217	Include all
		218	Include all
S	Cardiac valve & oth maj cardiothoracic proc w/o card cath	219	Include all
		220	Include all
		221	Include all
S	Cardiac defib implant w cardiac cath w AMI/HF/shock	222	Include all
		223	Include all
S	Cardiac defib implant w cardiac cath w/o AMI/HF/shock	224	Include all
		225	Include all
S	Cardiac defibrillator implant w/o cardiac cath	226	Include all
		227	Include all
S	Other cardiothoracic procedures	228	Include all
		229	Include all
		230	Include all
S	Coronary bypass w PTCA	231	Include all
		232	Include all

\*Exclude principal diagnoses:

- T8021 (central-line-associated bloodstream infections)
- T8351 (catheter-associated urinary tract infections)

### Geriatrics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Coronary bypass w cardiac cath	233	Include all
		234	Include all
S	Coronary bypass w/o cardiac cath	235	Include all
		236	Include all
S	Amputation for circ sys disorders exc upper limb & toe	239	Include all
		240	Include all
		241	Include all
S	Permanent cardiac pacemaker implant	242	Include all
		243	Include all
		244	Include all
S	AICD generator procedures	245	Include all
S	Perc cardiovasc proc w drug-eluting stent	246	Include all
		247	Include all
		248	Include all
S	Perc cardiovasc proc w non-drug-eluting stent	249	Include all
		250	Include all
		251	Include all
S	Other vascular procedures	252	Include all
		253	Include all
		254	Include all
S	Upper limb & toe amputation for circ system disorders	255	Include all
		256	Include all
		257	Include all
S	Cardiac pacemaker device replacement	258	Include all
		259	Include all
S	Cardiac pacemaker revision except device replacement	260	Include all
		261	Include all
		262	Include all
S	Vein ligation & stripping	263	Include all
S	Other circulatory system O.R. procedures	264	Include all
S	AICD lead procedures	265	Include all
S	Endovascular Cardiac Valve Replacement	266	Include all
		267	Include all
S	Aortic and heart assist procedures except pulsation balloon	268	Include all
		269	Include all
S	Other major cardiovascular procedures	270	Include all
		271	Include all
		272	Include all
S	Percutaneous intracardiac procedures	273	Include all
		274	Include all
M	Acute myocardial infarction, discharged alive	280	Include all
		281	Include all
		282	Include all
M	Acute myocardial infarction, expired	283	Include all
		284	Include all
		285	Include all

\*Exclude principal diagnoses:

- T8021 (central-line-associated bloodstream infections)
- T8351 (catheter-associated urinary tract infections)

### Geriatrics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
M	Circulatory disorders except AMI, w card cath	286	Include all
		287	Include all
M	Acute & subacute endocarditis	288	Include all
		289	Include all
		290	Include all
M	Heart failure & shock	291	Include all
		292	Include all
		293	Include all
M	Deep vein thrombophlebitis	294	Include all
		295	Include all
M	Cardiac arrest, unexplained	296	Include all
		297	Include all
		298	Include all
M	Peripheral vascular disorders	299	Include all
		300	Include all
		301	Include all
M	Atherosclerosis	302	Include all
		303	Include all
M	Hypertension	304	Include all
		305	Include all
M	Cardiac congenital & valvular disorders	306	Include all
		307	Include all
M	Cardiac arrhythmia & conduction disorders	308	Include all
		309	Include all
		310	Include all
M	Angina pectoris	311	Include all
M	Syncope & collapse	312	Include all
M	Chest pain	313	Include all
M	Other circulatory system diagnoses	314	Include all
		315	Include all
		316	Include all
S	Stomach, esophageal & duodenal proc	326	Include all
		327	Include all
		328	Include all
S	Major small & large bowel procedures	329	Include all
		330	Include all
		331	Include all
S	Rectal resection	332	Include all
		333	Include all
		334	Include all
S	Peritoneal adhesiolysis	335	Include all
		336	Include all
		337	Include all
S	Appendectomy w complicated principal diag	338	Include all
		339	Include all
		340	Include all

\*Exclude principal diagnoses:

- T8021 (central-line-associated bloodstream infections)
- T8351 (catheter-associated urinary tract infections)



### Geriatrics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Appendectomy w/o complicated principal diag	341	Include all
		342	Include all
		343	Include all
S	Minor small & large bowel procedures	344	Include all
		345	Include all
		346	Include all
S	Anal & stomal procedures	347	Include all
		348	Include all
		349	Include all
S	Inguinal & femoral hernia procedures	350	Include all
		351	Include all
		352	Include all
S	Hernia procedures except inguinal & femoral	353	Include all
		354	Include all
		355	Include all
S	Other digestive system O.R. procedures	356	Include all
		357	Include all
		358	Include all
M	Major esophageal disorders	368	Include all
		369	Include all
		370	Include all
M	Major gastrointestinal disorders & peritoneal infections	371	Include all
		372	Include all
		373	Include all
M	Digestive malignancy	374	Include all
		375	Include all
		376	Include all
M	G.I. hemorrhage	377	Include all
		378	Include all
		379	Include all
M	Complicated peptic ulcer	380	Include all
		381	Include all
		382	Include all
M	Uncomplicated peptic ulcer	383	Include all
		384	Include all
M	Inflammatory bowel disease	385	Include all
		386	Include all
		387	Include all
M	G.I. obstruction	388	Include all
		389	Include all
		390	Include all
M	Esophagitis, gastroent & misc digest disorders	391	Include all
		392	Include all
M	Other digestive system diagnoses	393	Include all
		394	Include all
		395	Include all

\*Exclude principal diagnoses:

- T8021 (central-line-associated bloodstream infections)
- T8351 (catheter-associated urinary tract infections)

### Geriatrics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Pancreas, liver & shunt procedures	405	Include all
		406	Include all
		407	Include all
S	Biliary tract proc except only cholecyst w or w/o c.d.e.	408	Include all
		409	Include all
		410	Include all
S	Cholecystectomy w c.d.e.	411	Include all
		412	Include all
		413	Include all
S	Cholecystectomy except by laparoscope w/o c.d.e.	414	Include all
		415	Include all
		416	Include all
S	Laparoscopic cholecystectomy w/o c.d.e.	417	Include all
		418	Include all
		419	Include all
S	Hepatobiliary diagnostic procedures	420	Include all
		421	Include all
		422	Include all
S	Other hepatobiliary or pancreas O.R. procedures	423	Include all
		424	Include all
		425	Include all
M	Cirrhosis & alcoholic hepatitis	432	Include all
		433	Include all
		434	Include all
M	Malignancy of hepatobiliary system or pancreas	435	Include all
		436	Include all
		437	Include all
M	Disorders of pancreas except malignancy	438	Include all
		439	Include all
		440	Include all
M	Disorders of liver except malig,cirr,alc hepa	441	Include all
		442	Include all
		443	Include all
M	Disorders of the biliary tract	444	Include all
		445	Include all
		446	Include all
S	Combined anterior/posterior spinal fusion	453	Include all
		454	Include all
		455	Include all
S	Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus	456	Include all
		457	Include all
		458	Include all
S	Spinal fusion except cervical	459	Include all
		460	Include all
S	Bilateral or multiple major joint procs of lower extremity	461	Include all
		462	Include all

\*Exclude principal diagnoses:

- T8021 (central-line-associated bloodstream infections)
- T8351 (catheter-associated urinary tract infections)

### Geriatrics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Wnd debrid & skn grft exc hand, for musculo-conn tiss dis	463	Include all
		464	Include all
		465	Include all
S	Revision of hip or knee replacement	466	Include all
		467	Include all
		468	Include all
S	Major Hip and Knee Joint Replacement or Reattachment of Lower Extremity with MCC or Total Ankle Replacement	469	Include all
S	Cervical spinal fusion	471	Include all
		472	Include all
		473	Include all
S	Amputation for musculoskeletal sys & conn tissue dis	474	Include all
		475	Include all
		476	Include all
S	Biopsies of musculoskeletal system & connective tissue	477	Include all
		478	Include all
		479	Include all
S	Hip & femur procedures except major joint	480	Include all
		481	Include all
		482	Include all
S	Major joint & limb reattachment proc of upper extremity	483	Include all
S	Knee procedures w pdx of infection	485	Include all
		486	Include all
		487	Include all
S	Knee procedures w/o pdx of infection	488	Include all
		489	Include all
S	Lower extrem & humer proc except hip,foot,femur	492	Include all
		493	Include all
		494	Include all
S	Local excision & removal int fix devices exc hip & femur	495	Include all
		496	Include all
		497	Include all
S	Local excision & removal int fix devices of hip & femur	498	Include all
		499	Include all
S	Soft tissue procedures	500	Include all
		501	Include all
		502	Include all
S	Foot procedures	503	Include all
		504	Include all
		505	Include all
S	Major thumb or joint procedures	506	Include all
S	Major shoulder or elbow joint procedures	507	Include all
		508	Include all
S	Arthroscopy	509	Include all

\*Exclude principal diagnoses:

- T8021 (central-line-associated bloodstream infections)
- T8351 (catheter-associated urinary tract infections)

### Geriatrics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Shoulder,elbow or forearm proc,exc major joint proc	510	Include all
		511	Include all
		512	Include all
S	Hand or wrist proc, except major thumb or joint proc	513	Include all
		514	Include all
S	Other musculoskelet sys & conn tiss O.R. proc	515	Include all
		516	Include all
		517	Include all
S	Back & Neck Procedures Except Spinal Fusion	518	Include all
		519	Include all
		520	Include all
M	Fractures of femur	533	Include all
		534	Include all
M	Fractures of hip & pelvis	535	Include all
		536	Include all
M	Sprains, strains, & dislocations of hip, pelvis & thigh	537	Include all
		538	Include all
M	Osteomyelitis	539	Include all
		540	Include all
		541	Include all
M	Pathological fractures & musculoskelet & conn tiss malig	542	Include all
		543	Include all
		544	Include all
M	Connective tissue disorders	545	Include all
		546	Include all
		547	Include all
M	Septic arthritis	548	Include all
		549	Include all
		550	Include all
M	Medical back problems	551	Include all
		552	Include all
M	Bone diseases & arthropathies	553	Include all
		554	Include all
M	Signs & symptoms of musculoskeletal system & conn tissue	555	Include all
		556	Include all
M	Tendonitis, myositis & bursitis	557	Include all
		558	Include all
M	Aftercare, musculoskeletal system & connective tissue	559	Include all
		560	Include all
		561	Include all
M	Fx, sprn, strn & disl except femur, hip, pelvis & thigh	562	Include all
		563	Include all
M	Other musculoskeletal sys & connective tissue diagnoses	564	Include all
		565	Include all
		566	Include all

\*Exclude principal diagnoses:

- T8021 (central-line-associated bloodstream infections)
- T8351 (catheter-associated urinary tract infections)

### Geriatrics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Skin debridement	570	Include all
		571	Include all
		572	Include all
S	Skin graft for skin ulcer or cellulitis	573	Include all
		574	Include all
		575	Include all
S	Skin graft except for skin ulcer or cellulitis	576	Include all
		577	Include all
		578	Include all
S	Other skin, subcut tiss & breast proc	579	Include all
		580	Include all
		581	Include all
S	Mastectomy for malignancy	582	Include all
		583	Include all
S	Breast biopsy, local excision & other breast procedures	584	Include all
		585	Include all
M	Skin ulcers	592	Include all
		593	Include all
		594	Include all
M	Major skin disorders	595	Include all
		596	Include all
M	Malignant breast disorders	597	Include all
		598	Include all
		599	Include all
M	Non-malignant breast disorders	600	Include all
		601	Include all
M	Cellulitis	602	Include all
		603	Include all
M	Trauma to the skin, subcut tiss & breast	604	Include all
		605	Include all
M	Minor skin disorders	606	Include all
		607	Include all
S	Adrenal & pituitary procedures	614	Include all
		615	Include all
S	Amputat of lower limb for endocrine,nutrit,& metabol dis	616	Include all
		617	Include all
		618	Include all
S	O.R. procedures for obesity	619	Include all
		620	Include all
		621	Include all
S	Skin grafts & wound debrid for endoc, nutrit & metab dis	622	Include all
		623	Include all
		624	Include all
S	Thyroid, parathyroid & thyroglossal procedures	625	Include all
		626	Include all
		627	Include all

\*Exclude principal diagnoses:

- T8021 (central-line-associated bloodstream infections)
- T8351 (catheter-associated urinary tract infections)

### Geriatrics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Other endocrine, nutrit & metab O.R. proc	628	Include all
		629	Include all
		630	Include all
M	Diabetes	637	Include all
		638	Include all
		639	Include all
M	Misc disorders of nutrition, metabolism, fluids/electrolyes	640	Include all
		641	Include all
M	Inborn and other disorders of metabolism	642	Include all
M	Endocrine disorders	643	Include all
		644	Include all
		645	Include all
S	Kidney transplant	652	Include all
S	Major bladder procedures	653	Include all
		654	Include all
		655	Include all
S	Kidney & ureter procedures for neoplasm	656	Include all
		657	Include all
		658	Include all
S	Kidney & ureter procedures for non-neoplasm	659	Include all
		660	Include all
		661	Include all
S	Minor bladder procedures	662	Include all
		663	Include all
		664	Include all
S	Prostatectomy	665	Include all
		666	Include all
		667	Include all
S	Transurethral procedures	668	Include all
		669	Include all
		670	Include all
S	Urethral procedures	671	Include all
		672	Include all
S	Other kidney & urinary tract procedures	673	Include all
		674	Include all
		675	Include all
M	Renal failure	682	Include all
		683	Include all
		684	Include all
M	Kidney & urinary tract neoplasms	686	Include all
		687	Include all
		688	Include all
M	Kidney & urinary tract infections	689	Include all
		690	Include all
M	Urinary stones w esw lithotripsy	691	Include all
		692	Include all

\*Exclude principal diagnoses:

- T8021 (central-line-associated bloodstream infections)
- T8351 (catheter-associated urinary tract infections)

### Geriatrics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
M	Urinary stones w/o esw lithotripsy	693	Include all
		694	Include all
M	Kidney & urinary tract signs & symptoms	695	Include all
		696	Include all
M	Urethral stricture	697	Include all
M	Other kidney & urinary tract diagnoses	698	Include all
		699	Include all
		700	Include all
S	Major male pelvic procedures	707	Include all
		708	Include all
S	Penis procedures	709	Include all
		710	Include all
S	Testes procedures	711	Include all
		712	Include all
S	Transurethral prostatectomy	713	Include all
		714	Include all
S	Other male reproductive system O.R. proc for malignancy	715	Include all
		716	Include all
S	Other male reproductive system O.R. proc exc malignancy	717	Include all
		718	Include all
M	Malignancy, male reproductive system	722	Include all
		723	Include all
		724	Include all
M	Benign prostatic hypertrophy	725	Include all
		726	Include all
M	Inflammation of the male reproductive system	727	Include all
		728	Include all
M	Other male reproductive system diagnoses	729	Include all
		730	Include all
S	Pelvic evisceration, rad hysterectomy & rad vulvectomy	734	Include all
		735	Include all
S	Uterine & adnexa proc for ovarian or adnexal malignancy	736	Include all
		737	Include all
		738	Include all
S	Uterine,adnexa proc for non-ovarian/adnexal malig	739	Include all
		740	Include all
		741	Include all
S	Uterine & adnexa proc for non-malignancy	742	Include all
		743	Include all
S	D&C, conization, laparoscopy & tubal interruption	744	Include all
		745	Include all
S	Vagina, cervix & vulva procedures	746	Include all
		747	Include all
S	Female reproductive system reconstructive procedures	748	Include all
S	Other female reproductive system O.R. procedures	749	Include all
		750	Include all

\*Exclude principal diagnoses:

- T8021 (central-line-associated bloodstream infections)
- T8351 (catheter-associated urinary tract infections)

### Geriatrics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
M	Malignancy, female reproductive system	754	Include all
		755	Include all
		756	Include all
M	Infections, female reproductive system	757	Include all
		758	Include all
		759	Include all
M	Menstrual & other female reproductive system disorders	760	Include all
		761	Include all
S	Splenectomy	799	Include all
		800	Include all
		801	Include all
S	Other O.R. proc of the blood & blood forming organs	802	Include all
		803	Include all
		804	Include all
M	Major hematom/immun diag exc sickle cell crisis & coagul	808	Include all
		809	Include all
		810	Include all
M	Red blood cell disorders	811	Include all
		812	Include all
M	Coagulation disorders	813	Include all
		814	Include all
		815	Include all
M	Reticuloendothelial & immunity disorders	816	Include all
		820	Include all
		821	Include all
S	Lymphoma & leukemia w major O.R. procedure	822	Include all
		823	Include all
		824	Include all
S	Lymphoma & non-acute leukemia w other O.R. proc	825	Include all
		826	Include all
		827	Include all
S	Myeloprolif disord or poorly diff neopl w maj O.R. proc	828	Include all
		829	Include all
		830	Include all
S	Myeloprolif disord or poorly diff neopl w other O.R. proc	831	Include all
		832	Include all
		833	Include all
M	Acute leukemia w/o major O.R. procedure	834	Include all
		835	Include all
		836	Include all
M	Chemo w acute leukemia as sdx or w high dose chemo agent	837	Include all
		838	Include all
		839	Include all
M	Lymphoma & non-acute leukemia	840	Include all
		841	Include all
		842	Include all
M	Other myeloprolif dis or poorly diff neopl diag	843	Include all
		844	Include all
		845	Include all

\*Exclude principal diagnoses:

- T8021 (central-line-associated bloodstream infections)
- T8351 (catheter-associated urinary tract infections)



### Geriatrics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
M	Chemotherapy w/o acute leukemia as secondary diagnosis	846	Include all
		847	Include all
		848	Include all
M	Radiotherapy	849	Include all
S	Infectious & parasitic diseases w O.R. procedure	853	Include all
		854	Include all
		855	Include all
S	Postoperative or post-traumatic infections w O.R. proc	856	Include all
		857	Include all
		858	Include all
M	Postoperative & post-traumatic infections	862	Include all
		863	Include all
M	Fever of unknown origin	864	Include all
M	Fever	865	Include all
M	Viral illness	866	Include all
M	Other infectious & parasitic diseases diagnoses	867	Include all
		868	Include all
		869	Include all
M	Septicemia or severe sepsis w MV 96+ hours	870	Include all
		871	Include all
		872	Include all
S	O.R. procedure w principal diagnoses of mental illness	876	Include all
M	Acute adjustment reaction & psychosocial dysfunction	880	Include all
M	Depressive neuroses	881	Include all
M	Neuroses except depressive	882	Include all
M	Disorders of personality & impulse control	883	Include all
M	Organic disturbances & mental retardation	884	Include all
M	Psychoses	885	Include all
M	Behavioral & developmental disorders	886	Include all
M	Other mental disorder diagnoses	887	Include all
M	Alcohol/drug abuse or dependence w rehabilitation therapy	895	Include all
		896	Include all
		897	Include all
S	Wound debridements for injuries	901	Include all
		902	Include all
		903	Include all
S	Skin grafts for injuries	904	Include all
		905	Include all
S	Hand procedures for injuries	906	Include all
S	Other O.R. procedures for injuries	907	Include all
		908	Include all
		909	Include all
M	Traumatic injury	913	Include all
		914	Include all

\*Exclude principal diagnoses:

- T8021 (central-line-associated bloodstream infections)
- T8351 (catheter-associated urinary tract infections)

### Geriatrics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
M	Allergic reactions	915	Include all
		916	Include all
M	Poisoning & toxic effects of drugs	917	Include all
		918	Include all
M	Complications of treatment	919	Include all
		920	Include all
		921	Include all
M	Other injury, poisoning & toxic effect diag	922	Include all
		923	Include all
S	Extensive burns or full thickness burns w MV 96+ hrs w skin graft	927	Include all
S	Full thickness burn w skin graft or inhal inj	928	Include all
		929	Include all
M	Extensive burns or full thickness burns w MV 96+ hrs w/o skin graft	933	Include all
M	Full thickness burn w/o skin grft or inhal inj	934	Include all
M	Non-extensive burns	935	Include all
		939	Include all
		940	Include all
S	O.R. proc w diagnoses of other contact w health services	941	Include all
		945	Include all
M	Rehabilitation	946	Include all
		947	Include all
M	Signs & symptoms	948	Include all
		949	Include all
M	Aftercare	950	Include all
		951	Include all
M	Other factors influencing health status	951	Include all
S	Craniotomy for multiple significant trauma	955	Include all
S	Limb reattachment, hip & femur proc for multiple significant trauma	956	Include all
		957	Include all
		958	Include all
S	Other O.R. procedures for multiple significant trauma	959	Include all
		963	Include all
M	Other multiple significant trauma	964	Include all
		965	Include all
		969	Include all
S	HIV w extensive O.R. procedure	970	Include all
		974	Include all
M	HIV w major related condition	975	Include all
		976	Include all
		977	Include all
M	HIV w or w/o other related condition	981	Include all
		982	Include all
		983	Include all
S	Extensive O.R. procedure unrelated to principal diagnosis	981	Include all
		982	Include all
		983	Include all

\*Exclude principal diagnoses:

- T8021 (central-line-associated bloodstream infections)
- T8351 (catheter-associated urinary tract infections)

### Geriatrics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Prostatic O.R. procedure unrelated to principal diagnosis	984	Include all
		985	Include all
		986	Include all
S	Non-extensive O.R. proc unrelated to principal diagnosis	987	Include all
		988	Include all
		989	Include all

### Neurology & Neurosurgery

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Intracranial vascular procedures w PDX hemorrhage	020	Include all
		021	Include all
		022	Include all
S	Cranio w major dev impl/acute complex CNS PDX	023	Include all
		024	Include all
S	Craniotomy & endovascular intracranial procedures	025	Include all
		026	Include all
		027	Include all
S	Ventricular shunt procedures	031	Include all
		032	Include all
		033	Include all
S	Carotid artery stent procedure	034	Include all
		035	Include all
		036	Include all
S	Extracranial procedures	037	Include all
		038	Include all
		039	Include all
S	Periph & cranial nerve & other nerv syst proc	040	Include all
		041	Include all
		042	Include all
M	Spinal disorders & injuries	052	Include all
		053	Include all
M	Nervous system neoplasms	054	Include all
		055	Include all
M	Degenerative nervous system disorders	056	Include all
		057	Include all
M	Multiple sclerosis & cerebellar ataxia	058	Include all
		059	Include all
		060	Include all
M	Acute ischemic stroke w use of thrombolytic agent	061	Include all
		062	Include all
		063	Include all
M	Intracranial hemorrhage or cerebral infarction	064	Include all
		065	Include all
		066	Include all
M	Nonspecific cva & precerebral occlusion w/o infarct	067	Include all
		068	Include all
M	Transient ischemia	069	Include all

\*Exclude principal diagnoses:

- T8021 (central-line-associated bloodstream infections)
- T8351 (catheter-associated urinary tract infections)

## Neurology & Neurosurgery (cont.)

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
M	Nonspecific cerebrovascular disorders	070	Include all
		071	Include all
M	Cranial & peripheral nerve disorders	073	Include all
		074	Include all
M	Viral meningitis	075	Include all
		076	Include all
M	Hypertensive encephalopathy	077	Include all
		078	Include all
		079	Include all
M	Nontraumatic stupor & coma	080	Include all
		081	Include all
M	Traumatic stupor & coma, coma >1 hr	082	Include all
		083	Include all
		084	Include all
M	Traumatic stupor & coma, coma <1 hr	085	Include all
		086	Include all
		087	Include all
M	Other disorders of nervous system	091	Include all
		092	Include all
		093	Include all
M	Bacterial & tuberculous infections of nervous system	094	Include all
		095	Include all
		096	Include all
M	Non-bacterial infect of nervous sys exc viral meningitis	097	Include all
		098	Include all
		099	Include all
M	Seizures w MCC	100	Include all
S	Craniotomy for multiple significant trauma	955	Include all

## Obstetrics & Gynecology

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Pelvic evisceration, rad hysterectomy & rad vulvectomy	734	Include all
		735	Include all
S	Uterine & adnexa proc for ovarian or adnexal malignancy	736	Include all
		737	Include all
		738	Include all
S	Uterine,adnexa proc for non-ovarian/adnexal malig	739	Include all
		740	Include all
		741	Include all
S	Uterine & adnexa proc for non-malignancy	742	Include all
		743	Include all
S	Vagina, cervix & vulva procedures	746	Include all
		747	Include all
S	Other female reproductive system O.R. procedures	749	Include all
		750	Include all
M	Malignancy, female reproductive system	754	Include all
		755	Include all
		756	Include all
M	Infections, female reproductive system	757	Include all
		758	Include all
		759	Include all
M	Menstrual & other female reproductive system disorders	760	Include all
		761	Include all

### Orthopedics\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Spinal procedures	028	Exclude procedures: 001U074, 001U076, 001U077, 001U079, 001U0J4, 001U0J6, 001U0J7, 001U0J9, 001U0K4, 001U0K6, 001U0K7, 001U0K9, 001U374, 001U376, 001U377, 001U379, 001U3J4, 001U3J6, 001U3J7, 001U3J9, 001U3K4, 001U3K6, 001U3K7, 001U3K9, 005T0ZZ, 005T3ZZ, 005T4ZZ, 005W0ZZ, 005W3ZZ, 005W4ZZ, 005X0ZZ, 005X3ZZ, 005X4ZZ, 005Y0ZZ, 005Y3ZZ, 005Y4ZZ, 008W0ZZ, 008W3ZZ, 008W4ZZ, 008X0ZZ, 008X3ZZ, 008X4ZZ, 008Y0ZZ, 008Y3ZZ, 008Y4ZZ, 009T00Z, 009T0ZX, 009T0ZZ, 009T40Z, 009T4ZX, 009T4ZZ, 009U00Z, 009U0ZX, 009U0ZZ, 009W00Z, 009W0ZX, 009W0ZZ, 009W40Z, 009W4ZX, 009W4ZZ, 009X00Z, 009X0ZX, 009X0ZZ, 009X40Z, 009X4ZX, 009X4ZZ, 009Y00Z, 009Y0ZX, 009Y0ZZ, 009Y40Z, 009Y4ZX, 009Y4ZZ, 00BT0ZX, 00BT0ZZ, 00BT3ZX, 00BT3ZZ, 00BT4ZX, 00BT4ZZ, 00BW0ZX, 00BW0ZZ, 00BW3ZX, 00BW3ZZ, 00BW4ZX, 00BW4ZZ, 00BX0ZX, 00BX0ZZ, 00BX3ZX, 00BX3ZZ, 00BX4ZX, 00BX4ZZ, 00BY0ZX, 00BY0ZZ, 00BY3ZX, 00BY3ZZ, 00BY4ZX, 00BY4ZZ, 00CT0ZZ, 00CT3ZZ, 00CT4ZZ, 00CU0ZZ, 00CU3ZZ, 00CU4ZZ, 00CW0ZZ, 00CW3ZZ, 00CW4ZZ, 00CX0ZZ, 00CX3ZZ, 00CX4ZZ, 00CY0ZZ, 00CY3ZZ, 00CY4ZZ, 00DT0ZZ, 00DT3ZZ, 00DT4ZZ, 00FU0ZZ, 00FU3ZZ, 00FU4ZZ, 00FUXZZ, 00HU02Z, 00HU0MZ, 00HU0YZ, 00HU32Z, 00HU3MZ, 00HU42Z, 00HU4MZ, 00HV02Z, 00HV0MZ, 00HV0YZ, 00HV3MZ, 00HV3YZ, 00HV42Z, 00HV4MZ, 00HV4YZ, 00JU0ZZ, 00JU4ZZ, 00JV0ZZ, 00JV4ZZ, 00NT0ZZ, 00NT3ZZ, 00NT4ZZ, 00NW0ZZ, 00NW3ZZ, 00NW4ZZ, 00NX0ZZ, 00NX3ZZ, 00NX4ZZ, 00NY0ZZ, 00NY3ZZ, 00NY4ZZ, 00PU00Z, 00PU02Z, 00PU03Z, 00PU0JZ, 00PU0MZ, 00PU0YZ, 00PU3JZ, 00PU3MZ, 00PU40Z, 00PU42Z, 00PU43Z, 00PU4JZ, 00PU4MZ, 00PV00Z, 00PV0MZ, 00PV0YZ, 00PV3MZ, 00PV4MZ, 00QT0ZZ, 00QT3ZZ, 00QT4ZZ, 00QW0ZZ, 00QW3ZZ, 00QW4ZZ, 00QX0ZZ, 00QX3ZZ, 00QX4ZZ, 00QY0ZZ, 00QY3ZZ, 00QY4ZZ, 00RT07Z, 00RT0JZ, 00RT0KZ, 00RT47Z, 00RT4JZ, 00RT4KZ, 00SW0ZZ, 00SW3ZZ, 00SW4ZZ, 00SX0ZZ, 00SX3ZZ, 00SX4ZZ, 00SY0ZZ, 00SY3ZZ, 00SY4ZZ, 00UT07Z, 00UT0JZ, 00UT0KZ, 00UT37Z, 00UT3JZ, 00UT3KZ, 00UT47Z, 00UT4JZ, 00UT4KZ, 00WU00Z, 00WU02Z, 00WU03Z, 00WU0JZ, 00WU0MZ, 00WU0YZ, 00WU30Z, 00WU32Z, 00WU33Z, 00WU3JZ, 00WU3MZ, 00WU40Z, 00WU42Z, 00WU43Z, 00WU4JZ, 00WU4MZ, 00WV00Z, 00WV02Z, 00WV03Z, 00WV0MZ, 00WV0YZ, 00WV30Z, 00WV32Z, 00WV33Z, 00WV3MZ, 00WV40Z, 00WV42Z, 00WV43Z, 00WV4MZ, 01510ZZ, 01514ZZ, 01580ZZ, 01584ZZ, 015B0ZZ, 015B4ZZ, 015R0ZZ, 015R4ZZ, 01810ZZ, 01813ZZ, 01814ZZ, 01880ZZ, 01883ZZ, 01884ZZ, 018B0ZZ, 018B3ZZ, 018B4ZZ, 018R0ZZ, 018R3ZZ, 018R4ZZ, 0PS304Z, 0PS30ZZ, 0PS334Z, 0PS344Z, 0PS34ZZ, 0PS404Z, 0PS40ZZ, 0PS434Z, 0PS444Z, 0PS44ZZ,

\*Exclude principle diagnosis of metastatic cancer for all except MS-DRGs 542-544 or DRGs 456-458: C770, C771, C772, C773, C774, C775, C778, C779, C7800, C7801, C7802, C781, C782, C7830, C7839, C784, C785, C786, C787, C7880, C7889, C7900, C7901, C7902, C7910, C7911, C7919, C792, C7931, C7932, C7940, C7949, C7951, C7952, C7960, C7961, C7962, C7963, C7970, C7971, C7972, C7981, C7982, C7989, C799, C7B00, C7B01, C7B02, C7B03, C7B04, C7B09, C7B1, C7B8, C800.

### Orthopedics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Spinal procedures (cont.)	028 (cont.)	0QS004Z, 0QS00ZZ, 0QS034Z, 0QS044Z, 0QS04ZZ, 0QS104Z, 0QS10ZZ, 0QS134Z, 0QS144Z, 0QS14ZZ, 0QSS04Z, 0QSS0ZZ, 0QSS34Z, 0QSS3ZZ, 0QSS44Z, 0QSS4ZZ, 0RB00ZZ, 0RB03ZZ, 0RB04ZZ, 0RB10ZZ, 0RB13ZZ, 0RB14ZZ, 0RB40ZZ, 0RB43ZZ, 0RB44ZZ, 0RB60ZZ, 0RB63ZZ, 0RB64ZZ, 0RBA0ZZ, 0RBA3ZZ, 0RBA4ZZ, 0SB00ZZ, 0SB03ZZ, 0SB04ZZ, 0SB30ZZ, 0SB33ZZ, 0SB34ZZ, 0SB50ZZ, 0SB53ZZ, 0SB54ZZ, 0SB60ZZ, 0SB63ZZ, 0SB64ZZ, 0SB70ZZ, 0SB73ZZ, 0SB74ZZ, 0SB80ZZ, 0SB83ZZ, 0SB84ZZ
		029	See MS-DRG 028
		030	See MS-DRG 028
S	Combined anterior/posterior spinal fusion	453	Include all
		454	Include all
		455	Include all
S	Spinal fus exc cerv w spinal curv/malig/infec or 9+ fus	456	Include all
		457	Include all
		458	Include all
S	Spinal fusion except cervical	459	Include all
		460	Include all
S	Bilateral or multiple major joint procs of lower extremity	461	Include all
		462	Include all
S	Wound Debridement and Skin Graft Except Hand, for Musculo-Connective Tissue Disease	463	Include procedures: 0SP909Z, 0SP90JZ, 0SP93JZ, 0SP94JZ, 0SPA0JZ, 0SPA3JZ, 0SPA4JZ, 0SPB09Z, 0SPB0JZ, 0SPB3JZ, 0SPB4JZ, 0SPC09Z, 0SPC0JC, 0SPC0JZ, 0SPC3JC, 0SPC3JZ, 0SPC4JC, 0SPC4JZ, 0SPD09Z, 0SPD0JC, 0SPD0JZ, 0SPD3JC, 0SPD3JZ, 0SPD4JC, 0SPD4JZ, 0SPE0JZ, 0SPE3JZ, 0SPE4JZ, 0SPR0JZ, 0SPR3JZ, 0SPR4JZ, 0SPS0JZ, 0SPS3JZ, 0SPS4JZ, 0SPT0JZ, 0SPT3JZ, 0SPT4JZ, 0SPU0JZ, 0SPU3JZ, 0SPU4JZ, 0SPV0JZ, 0SPV3JZ, 0SPV4JZ, 0SPW0JZ, 0SPW3JZ, 0SPW4JZ
		464	See MS-DRG 463
		465	See MS-DRG 463
S	Revision of hip or knee replacement	466	Include all
		467	Include all
		468	Include all
S	Major joint replacement or reattachment of lower extremity	469	Include all
S	Cervical spinal fusion	471	Include all
		472	Include all
		473	Include all
S	Hip & femur procedures except major joint	480	Include all
		481	Include all
		482	Include all
S	Major joint & limb reattachment proc of upper extremity	483	Include all

\*Exclude principle diagnosis of metastatic cancer for all except MS-DRGs 542-544 or DRGs 456-458: C770, C771, C772, C773, C774, C775, C778, C779, C7800, C7801, C7802, C781, C782, C7830, C7839, C784, C785, C786, C787, C7880, C7889, C7900, C7901, C7902, C7910, C7911, C7919, C792, C7931, C7932, C7940, C7949, C7951, C7952, C7960, C7961, C7962, C7963, C7970, C7971, C7972, C7981, C7982, C7989, C799, C7B00, C7B01, C7B02, C7B03, C7B04, C7B09, C7B1, C7B8, C800.

### Orthopedics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Knee procedures w pdx of infection	485	Include all
		486	Include all
		487	Include all
S	Lower extrem & humer proc except hip,foot,femur	492	Include all
		493	Include all
		494	Include all
S	Local excision & removal int fix devices exc hip & femur	495	Include all
		496	Include all
		497	Include all
S	Local excision & removal int fix devices of hip & femur	498	Include all
		499	Include all
S	Soft tissue procedures	500	Include all
		501	Include all
S	Foot procedures	503	Include all
		504	Include all
		505	Include all
S	Major thumb or joint procedures	506	Include all
S	Major shoulder or elbow joint procedures	507	Include all
		508	Include all
S	Other musculoskelet sys & conn tiss O.R. proc	515	Include procedures: 0MM00ZZ, 0MM04ZZ, 0MM10ZZ, 0MM14ZZ, 0MM20ZZ, 0MM24ZZ, 0MM30ZZ, 0MM34ZZ, 0MM40ZZ, 0MM44ZZ, 0MM50ZZ, 0MM54ZZ, 0MM60ZZ, 0MM64ZZ, 0MM70ZZ, 0MM74ZZ, 0MM80ZZ, 0MM84ZZ, 0MM90ZZ, 0MM94ZZ, 0MMB0ZZ, 0MMB4ZZ, 0MMC0ZZ, 0MMC4ZZ, 0MMD0ZZ, 0MMD4ZZ, 0MMF0ZZ, 0MMF4ZZ, 0MMG0ZZ, 0MMG4ZZ, 0MMH0ZZ, 0MMH4ZZ, 0MMJ0ZZ, 0MMJ4ZZ, 0MMK0ZZ, 0MMK4ZZ, 0MML0ZZ, 0MML4ZZ, 0MMM0ZZ, 0MMM4ZZ, 0MMN0ZZ, 0MMN4ZZ, 0MMP0ZZ, 0MMP4ZZ, 0MMQ0ZZ, 0MMQ4ZZ, 0MMR0ZZ, 0MMR4ZZ, 0MMS0ZZ, 0MMS4ZZ, 0MMT0ZZ, 0MMT4ZZ, 0MMV0ZZ, 0MMV4ZZ, 0MMW0ZZ, 0MMW4ZZ, 0MPX00Z, 0MPX0JZ, 0MPX3JZ, 0MPX40Z, 0MPX4JZ, 0MPY00Z, 0MPY0JZ, 0MPY3JZ, 0MPY40Z, 0MPY4JZ, 0MS00ZZ, 0MS04ZZ, 0MS10ZZ, 0MS14ZZ, 0MS20ZZ, 0MS24ZZ, 0MS30ZZ, 0MS34ZZ, 0MS40ZZ, 0MS44ZZ, 0MS50ZZ, 0MS54ZZ, 0MS60ZZ, 0MS64ZZ, 0MS70ZZ, 0MS74ZZ, 0MS80ZZ, 0MS84ZZ, 0MSC0ZZ, 0MSC4ZZ, 0MSD0ZZ, 0MSD4ZZ, 0MSF0ZZ, 0MSF4ZZ, 0MSG0ZZ, 0MSG4ZZ, 0MSH0ZZ, 0MSH4ZZ, 0MSJ0ZZ, 0MSJ4ZZ, 0MSK0ZZ, 0MSK4ZZ, 0MSL0ZZ, 0MSL4ZZ, 0MSM0ZZ, 0MSM4ZZ, 0MSN0ZZ, 0MSN4ZZ, 0MSP0ZZ, 0MSP4ZZ, 0MSQ0ZZ, 0MSQ4ZZ, 0MSR0ZZ, 0MSR4ZZ, 0MSS0ZZ, 0MSS4ZZ, 0MST0ZZ, 0MST4ZZ, 0MU007Z, 0MU00JZ, 0MU00KZ, 0MU047Z, 0MU04JZ, 0MU04KZ, 0MU107Z, 0MU10JZ, 0MU10KZ, 0MU147Z, 0MU14JZ, 0MU14KZ, 0MU207Z, 0MU20JZ, 0MU20KZ, 0MU247Z, 0MU24JZ, 0MU24KZ, 0MU307Z, 0MU30JZ, 0MU30KZ, 0MU347Z, 0MU34JZ, 0MU34KZ,

\*Exclude principle diagnosis of metastatic cancer for all except MS-DRGs 542-544 or DRGs 456-458: C770, C771, C772, C773, C774, C775, C778, C779, C7800, C7801, C7802, C781, C782, C7830, C7839, C784, C785, C786, C787, C7880, C7889, C7900, C7901, C7902, C7910, C7911, C7919, C792, C7931, C7932, C7940, C7949, C7951, C7952, C7960, C7961, C7962, C7963, C7970, C7971, C7972, C7981, C7982, C7989, C799, C7B00, C7B01, C7B02, C7B03, C7B04, C7B09, C7B1, C7B8, C800.



### Orthopedics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Other musculoskelet sys & conn tiss O.R. proc (cont.)	515 (cont.)	0MU407Z, 0MU40JZ, 0MU40KZ, 0MU447Z, 0MU44JZ, 0MU44KZ, 0MU507Z, 0MU50JZ, 0MU50KZ, 0MU547Z, 0MU54JZ, 0MU54KZ, 0MU607Z, 0MU60JZ, 0MU60KZ, 0MU647Z, 0MU64JZ, 0MU64KZ, 0MU707Z, 0MU70JZ, 0MU70KZ, 0MU747Z, 0MU74JZ, 0MU74KZ, 0MU807Z, 0MU80JZ, 0MU80KZ, 0MU847Z, 0MU84JZ, 0MU84KZ, 0MUC07Z, 0MUC0JZ, 0MUC0KZ, 0MUC47Z, 0MUC4JZ, 0MUC4KZ, 0MUD07Z, 0MUD0JZ, 0MUD0KZ, 0MUD47Z, 0MUD4JZ, 0MUD4KZ, 0MUF07Z, 0MUF0JZ, 0MUF0KZ, 0MUF47Z, 0MUF4JZ, 0MUF4KZ, 0MUG07Z, 0MUG0JZ, 0MUG0KZ, 0MUG47Z, 0MUG4JZ, 0MUG4KZ, 0MUH07Z, 0MUH0JZ, 0MUH0KZ, 0MUH47Z, 0MUH4JZ, 0MUH4KZ, 0MUJ07Z, 0MUJ0JZ, 0MUJ0KZ, 0MUJ47Z, 0MUJ4JZ, 0MUJ4KZ, 0MUK07Z, 0MUK0JZ, 0MUK0KZ, 0MUK47Z, 0MUK4JZ, 0MUK4KZ, 0MUL07Z, 0MUL0JZ, 0MUL0KZ, 0MUL47Z, 0MUL4JZ, 0MUL4KZ, 0MUM07Z, 0MUM0JZ, 0MUM0KZ, 0MUM47Z, 0MUM4JZ, 0MUM4KZ, 0MUN07Z, 0MUN0JZ, 0MUN0KZ, 0MUN47Z, 0MUN4JZ, 0MUN4KZ, 0MUP07Z, 0MUP0JZ, 0MUP0KZ, 0MUP47Z, 0MUP4JZ, 0MUP4KZ, 0MUQ07Z, 0MUQ0JZ, 0MUQ0KZ, 0MUQ47Z, 0MUQ4JZ, 0MUQ4KZ, 0MUR07Z, 0MUR0JZ, 0MUR0KZ, 0MUR47Z, 0MUR4JZ, 0MUR4KZ, 0MUS07Z, 0MUS0JZ, 0MUS0KZ, 0MUS47Z, 0MUS4JZ, 0MUS4KZ, 0MUT07Z, 0MUT0JZ, 0MUT0KZ, 0MUT47Z, 0MUT4JZ, 0MUT4KZ, 0NBC0ZZ, 0NBC3ZZ, 0NBC4ZZ, 0NBF0ZZ, 0NBF3ZZ, 0NBF4ZZ, 0NBG0ZZ, 0NBG3ZZ, 0NBG4ZZ, 0NBH0ZZ, 0NBH3ZZ, 0NBH4ZZ, 0NBJ0ZZ, 0NBJ3ZZ, 0NBJ4ZZ, 0NBK0ZZ, 0NBK3ZZ, 0NBK4ZZ, 0NBL0ZZ, 0NBL3ZZ, 0NBL4ZZ, 0NBM0ZZ, 0NBM3ZZ, 0NBM4ZZ, 0NBN0ZZ, 0NBN3ZZ, 0NBN4ZZ, 0NBR0ZZ, 0NBR3ZZ, 0NBR4ZZ, 0NBT0ZZ, 0NBT3ZZ, 0NBT4ZZ, 0NBV0ZZ, 0NBV3ZZ, 0NBV4ZZ, 0NBX0ZZ, 0NBX3ZZ, 0NBX4ZZ, 0NQR0ZZ, 0NQR3ZZ, 0NQR4ZZ, 0NQT0ZZ, 0NQT3ZZ, 0NQT4ZZ, 0NQV0ZZ, 0NQV3ZZ, 0NQV4ZZ, 0NRC0JZ, 0NRC3JZ, 0NRC47Z, 0NRF0JZ, 0NRF3JZ, 0NRF4JZ, 0NRG0JZ, 0NRG0KZ, 0NRG3JZ, 0NRG4JZ, 0NRH0JZ, 0NRH3JZ, 0NRH4JZ, 0NRJ0JZ, 0NRJ3JZ, 0NRJ4JZ, 0NRK0JZ, 0NRK3JZ, 0NRK4JZ, 0NRLOJZ, 0NRL3JZ, 0NRL4JZ, 0NRM0JZ, 0NRM3JZ, 0NRM4JZ, 0NRN0JZ, 0NRN3JZ, 0NRN4JZ, 0NRT07Z, 0NRT0JZ, 0NRT0KZ, 0NRT37Z, 0NRT3JZ, 0NRT3KZ, 0NRT47Z, 0NRT4JZ, 0NRT4KZ, 0NRV07Z, 0NRV0JZ, 0NRV0KZ, 0NRV37Z, 0NRV3JZ, 0NRV3KZ, 0NRV47Z, 0NRV4JZ, 0NRV4KZ, 0NRX0JZ, 0NRX3JZ, 0NRX4JZ, 0NSC04Z, 0NSC0ZZ, 0NSF04Z, 0NSF0ZZ, 0NSG04Z, 0NSG0ZZ, 0NSH04Z, 0NSH0ZZ, 0NSJ04Z, 0NSJ0ZZ, 0NSK04Z, 0NSK0ZZ, 0NSL04Z, 0NSL0ZZ, 0NSM04Z, 0NSM0ZZ, 0NSN04Z, 0NSN0ZZ, 0NSP04Z, 0NSP0ZZ, 0NSQ04Z, 0NSQ0ZZ, 0NSR04Z,

\*Exclude principle diagnosis of metastatic cancer for all except MS-DRGs 542-544 or DRGs 456-458: C770, C771, C772, C773, C774, C775, C778, C779, C7800, C7801, C7802, C781, C782, C7830, C7839, C784, C785, C786, C787, C7880, C7889, C7900, C7901, C7902, C7910, C7911, C7919, C792, C7931, C7932, C7940, C7949, C7951, C7952, C7960, C7961, C7962, C7963, C7970, C7971, C7972, C7981, C7982, C7989, C799, C7B00, C7B01, C7B02, C7B03, C7B04, C7B09, C7B1, C7B8, C800.

### Orthopedics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Other musculoskelet sys & conn tiss O.R. proc (cont.)	515 (cont.)	ONSR05Z, ONSR0ZZ, ONST04Z, ONST05Z, ONST0ZZ, ONSV04Z, ONSV05Z, ONSV0ZZ, ONSX04Z, ONSX0ZZ, ONTC0ZZ, ONTF0ZZ, ONTG0ZZ, ONTH0ZZ, ONTJ0ZZ, ONTK0ZZ, ONTL0ZZ, ONTM0ZZ, ONTN0ZZ, ONTP0ZZ, ONTQ0ZZ, ONTR0ZZ, ONTT0ZZ, ONTV0ZZ, ONTX0ZZ, ONUC07Z, ONUC0JZ, ONUC3JZ, ONUC4JZ, ONUF0JZ, ONUF3JZ, ONUF4JZ, ONUG0JZ, ONUG3JZ, ONUG4JZ, ONUH0JZ, ONUH3JZ, ONUH4JZ, ONUJ0JZ, ONUJ3JZ, ONUJ4JZ, ONUK0JZ, ONUK3JZ, ONUK4JZ, ONUL0JZ, ONUL3JZ, ONUL4JZ, ONUM0JZ, ONUM3JZ, ONUM4JZ, ONUN0JZ, ONUN3JZ, ONUN4JZ, ONUT07Z, ONUT0JZ, ONUT0KZ, ONUT37Z, ONUT3JZ, ONUT3KZ, ONUT47Z, ONUT4JZ, ONUT4KZ, ONUV07Z, ONUV0JZ, ONUV0KZ, ONUV37Z, ONUV3JZ, ONUV3KZ, ONUV47Z, ONUV4JZ, ONUV4KZ, ONUX07Z, ONUX0JZ, ONUX3JZ, ONUX4JZ, OP800ZZ, OP803ZZ, OP804ZZ, OP810ZZ, OP813ZZ, OP814ZZ, OP820ZZ, OP823ZZ, OP824ZZ, OP830ZZ, OP833ZZ, OP834ZZ, OP840ZZ, OP843ZZ, OP844ZZ, OP850ZZ, OP853ZZ, OP854ZZ, OP860ZZ, OP863ZZ, OP864ZZ, OP870ZZ, OP873ZZ, OP874ZZ, OP880ZZ, OP883ZZ, OP884ZZ, OP890ZZ, OP893ZZ, OP894ZZ, OP8B0ZZ, OP8B3ZZ, OP8B4ZZ, OP8R0ZZ, OP8R3ZZ, OP8R4ZZ, OP8S0ZZ, OP8S3ZZ, OP8S4ZZ, OP8T0ZZ, OP8T3ZZ, OP8T4ZZ, OP8V0ZZ, OP8V3ZZ, OP8V4ZZ, OPB00ZZ, OPB03ZZ, OPB04ZZ, OPB10ZZ, OPB13ZZ, OPB14ZZ, OPB20ZZ, OPB23ZZ, OPB24ZZ, OPB30ZZ, OPB33ZZ, OPB34ZZ, OPB40ZZ, OPB43ZZ, OPB44ZZ, OPB50ZZ, OPB53ZZ, OPB54ZZ, OPB60ZZ, OPB63ZZ, OPB64ZZ, OPB70ZZ, OPB73ZZ, OPB74ZZ, OPB80ZZ, OPB83ZZ, OPB84ZZ, OPB90ZZ, OPB93ZZ, OPB94ZZ, OPBB0ZZ, OPBB3ZZ, OPBB4ZZ, OPBR0ZZ, OPBR3ZZ, OPBR4ZZ, OPBS0ZZ, OPBS3ZZ, OPBS4ZZ, OPBT0ZZ, OPBT3ZZ, OPBT4ZZ, OPBV0ZZ, OPBV3ZZ, OPBV4ZZ, OPC00ZZ, OPC03ZZ, OPC04ZZ, OPC10ZZ, OPC13ZZ, OPC14ZZ, OPC20ZZ, OPC23ZZ, OPC24ZZ, OPC30ZZ, OPC33ZZ, OPC34ZZ, OPC40ZZ, OPC43ZZ, OPC44ZZ, OPC50ZZ, OPC53ZZ, OPC54ZZ, OPC60ZZ, OPC63ZZ, OPC64ZZ, OPC70ZZ, OPC73ZZ, OPC74ZZ, OPC80ZZ, OPC83ZZ, OPC84ZZ, OPC90ZZ, OPC93ZZ, OPC94ZZ, OPCB0ZZ, OPCB3ZZ, OPCB4ZZ, OPCR0ZZ, OPCR3ZZ, OPCR4ZZ, OPCS0ZZ, OPCS3ZZ, OPCS4ZZ, OPCT0ZZ, OPCT3ZZ, OPCT4ZZ, OPCV0ZZ, OPCV3ZZ, OPCV4ZZ, OPH000Z, OPH004Z, OPH030Z, OPH034Z, OPH040Z, OPH044Z, OPH104Z, OPH134Z, OPH144Z, OPH204Z, OPH234Z, OPH244Z, OPH304Z, OPH334Z, OPH344Z, OPH404Z, OPH434Z, OPH444Z, OPH504Z, OPH534Z, OPH544Z, OPH604Z, OPH634Z, OPH644Z, OPH704Z, OPH734Z, OPH744Z, OPH804Z, OPH834Z, OPH844Z, OPH904Z, OPH934Z, OPH944Z, OPHB04Z, OPHB34Z, OPHB44Z, OPHR04Z, OPHR05Z, OPHR34Z, OPHR35Z, OPHR44Z, OPHR45Z, OPHS04Z, OPHS05Z, OPHS34Z, OPHS35Z, OPHS44Z,

\*Exclude principle diagnosis of metastatic cancer for all except MS-DRGs 542-544 or DRGs 456-458: C770, C771, C772, C773, C774, C775, C778, C779, C7800, C7801, C7802, C781, C782, C7830, C7839, C784, C785, C786, C787, C7880, C7889, C7900, C7901, C7902, C7910, C7911, C7919, C792, C7931, C7932, C7940, C7949, C7951, C7952, C7960, C7961, C7962, C7963, C7970, C7971, C7972, C7981, C7982, C7989, C799, C7B00, C7B01, C7B02, C7B03, C7B04, C7B09, C7B1, C7B8, C800.

### Orthopedics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Other musculoskelet sys & conn tiss O.R. proc (cont.)	515 (cont.)	0PHS45Z, 0PHT04Z, 0PHT05Z, 0PHT34Z, 0PHT35Z, 0PHT44Z, 0PHT45Z, 0PHV04Z, 0PHV05Z, 0PHV34Z, 0PHV35Z, 0PHV44Z, 0PHV45Z, 0PHY0MZ, 0PHY3MZ, 0PHY4MZ, 0PN00ZZ, 0PN03ZZ, 0PN04ZZ, 0PN10ZZ, 0PN13ZZ, 0PN14ZZ, 0PN20ZZ, 0PN23ZZ, 0PN24ZZ, 0PN30ZZ, 0PN33ZZ, 0PN34ZZ, 0PN40ZZ, 0PN43ZZ, 0PN44ZZ, 0PN50ZZ, 0PN53ZZ, 0PN54ZZ, 0PN60ZZ, 0PN63ZZ, 0PN64ZZ, 0PN70ZZ, 0PN73ZZ, 0PN74ZZ, 0PN80ZZ, 0PN83ZZ, 0PN84ZZ, 0PN90ZZ, 0PN93ZZ, 0PN94ZZ, 0PNB0ZZ, 0PNB3ZZ, 0PNB4ZZ, 0PNR0ZZ, 0PNR3ZZ, 0PNR4ZZ, 0PNS0ZZ, 0PNS3ZZ, 0PNS4ZZ, 0PNT0ZZ, 0PNT3ZZ, 0PNT4ZZ, 0PNV0ZZ, 0PNV3ZZ, 0PNV4ZZ, 0PQ00ZZ, 0PQ03ZZ, 0PQ04ZZ, 0PQ10ZZ, 0PQ13ZZ, 0PQ14ZZ, 0PQ20ZZ, 0PQ23ZZ, 0PQ24ZZ, 0PQ30ZZ, 0PQ33ZZ, 0PQ34ZZ, 0PQ40ZZ, 0PQ43ZZ, 0PQ44ZZ, 0PQ50ZZ, 0PQ53ZZ, 0PQ54ZZ, 0PQ60ZZ, 0PQ63ZZ, 0PQ64ZZ, 0PQ70ZZ, 0PQ73ZZ, 0PQ74ZZ, 0PQ80ZZ, 0PQ83ZZ, 0PQ84ZZ, 0PQ90ZZ, 0PQ93ZZ, 0PQ94ZZ, 0PQB0ZZ, 0PQB3ZZ, 0PQB4ZZ, 0PQR0ZZ, 0PQR3ZZ, 0PQR4ZZ, 0PQS0ZZ, 0PQS3ZZ, 0PQS4ZZ, 0PQT0ZZ, 0PQT3ZZ, 0PQT4ZZ, 0PQV0ZZ, 0PQV3ZZ, 0PQV4ZZ, 0PR007Z, 0PR00JZ, 0PR00KZ, 0PR037Z, 0PR03JZ, 0PR03KZ, 0PR047Z, 0PR04JZ, 0PR04KZ, 0PR107Z, 0PR10JZ, 0PR10KZ, 0PR137Z, 0PR13JZ, 0PR13KZ, 0PR147Z, 0PR14JZ, 0PR14KZ, 0PR207Z, 0PR20JZ, 0PR20KZ, 0PR237Z, 0PR23JZ, 0PR23KZ, 0PR247Z, 0PR24JZ, 0PR24KZ, 0PR307Z, 0PR30JZ, 0PR30KZ, 0PR337Z, 0PR33JZ, 0PR33KZ, 0PR347Z, 0PR34JZ, 0PR34KZ, 0PR407Z, 0PR40JZ, 0PR40KZ, 0PR437Z, 0PR43JZ, 0PR43KZ, 0PR447Z, 0PR44JZ, 0PR44KZ, 0PR507Z, 0PR50JZ, 0PR50KZ, 0PR537Z, 0PR53JZ, 0PR53KZ, 0PR547Z, 0PR54JZ, 0PR54KZ, 0PR607Z, 0PR60JZ, 0PR60KZ, 0PR637Z, 0PR63JZ, 0PR63KZ, 0PR647Z, 0PR64JZ, 0PR64KZ, 0PR707Z, 0PR70JZ, 0PR70KZ, 0PR737Z, 0PR73JZ, 0PR73KZ, 0PR747Z, 0PR74JZ, 0PR74KZ, 0PR807Z, 0PR80JZ, 0PR80KZ, 0PR837Z, 0PR83JZ, 0PR83KZ, 0PR847Z, 0PR84JZ, 0PR84KZ, 0PR907Z, 0PR90JZ, 0PR90KZ, 0PR937Z, 0PR93JZ, 0PR93KZ, 0PR947Z, 0PR94JZ, 0PR94KZ, 0PRB07Z, 0PRB0JZ, 0PRB0KZ, 0PRB37Z, 0PRB3JZ, 0PRB3KZ, 0PRB47Z, 0PRB4JZ, 0PRB4KZ, 0PRR07Z, 0PRR0JZ, 0PRR0KZ, 0PRR37Z, 0PRR3JZ, 0PRR3KZ, 0PRR47Z, 0PRR4JZ, 0PRR4KZ, 0PRS07Z, 0PRS0JZ, 0PRS0KZ, 0PRS37Z, 0PRS3JZ, 0PRS3KZ, 0PRS47Z, 0PRS4JZ, 0PRS4KZ, 0PRT07Z, 0PRT0JZ, 0PRT0KZ, 0PRT37Z, 0PRT3JZ, 0PRT3KZ, 0PRT47Z, 0PRT4JZ, 0PRT4KZ, 0PRV07Z, 0PRV0JZ, 0PRV0KZ, 0PRV37Z, 0PRV3JZ, 0PRV3KZ, 0PRV47Z, 0PRV4JZ, 0PRV4KZ, 0PS000Z, 0PS004Z, 0PS00ZZ, 0PS030Z, 0PS034Z, 0PS040Z, 0PS044Z, 0PS104Z, 0PS10ZZ, 0PS134Z, 0PS144Z, 0PS204Z, 0PS20ZZ, 0PS234Z, 0PS244Z, 0PS334Z,

\*Exclude principle diagnosis of metastatic cancer for all except MS-DRGs 542-544 or DRGs 456-458: C770, C771, C772, C773, C774, C775, C778, C779, C7800, C7801, C7802, C781, C782, C7830, C7839, C784, C785, C786, C787, C7880, C7889, C7900, C7901, C7902, C7910, C7911, C7919, C792, C7931, C7932, C7940, C7949, C7951, C7952, C7960, C7961, C7962, C7963, C7970, C7971, C7972, C7981, C7982, C7989, C799, C7B00, C7B01, C7B02, C7B03, C7B04, C7B09, C7B1, C7B8, C800.

**Orthopedics (cont.)\***

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Other musculoskelet sys & conn tiss O.R. proc (cont.)	515 (cont.)	OPS33ZZ, OPS43ZZ, OPS504Z, OPS50ZZ, OPS534Z, OPS544Z, OPS604Z, OPS60ZZ, OPS634Z, OPS644Z, OPS704Z, OPS70ZZ, OPS734Z, OPS744Z, OPS804Z, OPS80ZZ, OPS834Z, OPS844Z, OPS904Z, OPS90ZZ, OPS934Z, OPS944Z, OPSB04Z, OPSB0ZZ, OPSB34Z, OPSB44Z, OPSR05Z, OPSR35Z, OPSR45Z, OPSS05Z, OPSS35Z, OPSS45Z, OPST05Z, OPST35Z, OPST45Z, OPSV05Z, OPSV35Z, OPSV45Z, OPT00ZZ, OPT10ZZ, OPT20ZZ, OPT50ZZ, OPT60ZZ, OPT70ZZ, OPT80ZZ, OPT90ZZ, OPTB0ZZ, OPTR0ZZ, OPTS0ZZ, OPTT0ZZ, OPTV0ZZ, OPU007Z, OPU00JZ, OPU00KZ, OPU037Z, OPU03JZ, OPU03KZ, OPU047Z, OPU04JZ, OPU04KZ, OPU107Z, OPU10JZ, OPU10KZ, OPU137Z, OPU13JZ, OPU13KZ, OPU147Z, OPU14JZ, OPU14KZ, OPU207Z, OPU20JZ, OPU20KZ, OPU237Z, OPU23JZ, OPU23KZ, OPU247Z, OPU24JZ, OPU24KZ, OPU307Z, OPU30JZ, OPU30KZ, OPU337Z, OPU33JZ, OPU33KZ, OPU347Z, OPU34JZ, OPU34KZ, OPU407Z, OPU40JZ, OPU40KZ, OPU437Z, OPU43JZ, OPU43KZ, OPU447Z, OPU44JZ, OPU44KZ, OPU507Z, OPU50JZ, OPU50KZ, OPU537Z, OPU53JZ, OPU53KZ, OPU547Z, OPU54JZ, OPU54KZ, OPU607Z, OPU60JZ, OPU60KZ, OPU637Z, OPU63JZ, OPU63KZ, OPU647Z, OPU64JZ, OPU64KZ, OPU707Z, OPU70JZ, OPU70KZ, OPU737Z, OPU73JZ, OPU73KZ, OPU747Z, OPU74JZ, OPU74KZ, OPU807Z, OPU80JZ, OPU80KZ, OPU837Z, OPU83JZ, OPU83KZ, OPU847Z, OPU84JZ, OPU84KZ, OPU907Z, OPU90JZ, OPU90KZ, OPU937Z, OPU93JZ, OPU93KZ, OPU947Z, OPU94JZ, OPU94KZ, OPUB07Z, OPUB0JZ, OPUB0KZ, OPUB37Z, OPUB3JZ, OPUB3KZ, OPUB47Z, OPUB4JZ, OPUB4KZ, OPUR07Z, OPUR0JZ, OPUR0KZ, OPUR37Z, OPUR3JZ, OPUR3KZ, OPUR47Z, OPUR4JZ, OPUR4KZ, OPUS07Z, OPUS0JZ, OPUS0KZ, OPUS37Z, OPUS3JZ, OPUS3KZ, OPUS47Z, OPUS4JZ, OPUS4KZ, OPUT07Z, OPUT0JZ, OPUT0KZ, OPUT37Z, OPUT3JZ, OPUT3KZ, OPUT47Z, OPUT4JZ, OPUT4KZ, OPUV07Z, OPUV0JZ, OPUV0KZ, OPUV37Z, OPUV3JZ, OPUV3KZ, OPUV47Z, OPUV4JZ, OPUV4KZ, OQ800ZZ, OQ803ZZ, OQ804ZZ, OQ810ZZ, OQ813ZZ, OQ814ZZ, OQ820ZZ, OQ823ZZ, OQ824ZZ, OQ830ZZ, OQ833ZZ, OQ834ZZ, OQ840ZZ, OQ843ZZ, OQ844ZZ, OQ850ZZ, OQ853ZZ, OQ854ZZ, OQ8Q0ZZ, OQ8Q3ZZ, OQ8Q4ZZ, OQ8R0ZZ, OQ8R3ZZ, OQ8R4ZZ, OQ8S0ZZ, OQ8S3ZZ, OQ8S4ZZ, OQB00ZZ, OQB03ZZ, OQB04ZZ, OQB10ZZ, OQB13ZZ, OQB14ZZ, OQB20ZZ, OQB23ZZ, OQB24ZZ, OQB30ZZ, OQB33ZZ, OQB34ZZ, OQB40ZZ, OQB43ZZ, OQB44ZZ, OQB50ZZ, OQB53ZZ, OQB54ZZ, OQBQ0ZZ, OQBQ3ZZ, OQBQ4ZZ, OQBR0ZZ, OQBR3ZZ, OQBR4ZZ, OQBS0ZZ, OQBS3ZZ, OQBS4ZZ, OQC00ZZ, OQC03ZZ, OQC04ZZ, OQC10ZZ, OQC13ZZ, OQC14ZZ, OQC20ZZ, OQC23ZZ, OQC24ZZ, OQC30ZZ, OQC33ZZ, OQC34ZZ, OQC40ZZ, OQC43ZZ, OQC44ZZ, OQC50ZZ, OQC53ZZ, OQC54ZZ, OQCQ0ZZ, OQCQ3ZZ, OQCQ4ZZ, OQCR0ZZ, OQCR3ZZ, OQCR4ZZ,

\*Exclude principle diagnosis of metastatic cancer for all except MS-DRGs 542-544 or DRGs 456-458: C770, C771, C772, C773, C774, C775, C778, C779, C7800, C7801, C7802, C781, C782, C7830, C7839, C784, C785, C786, C787, C7880, C7889, C7900, C7901, C7902, C7910, C7911, C7919, C792, C7931, C7932, C7940, C7949, C7951, C7952, C7960, C7961, C7962, C7963, C7970, C7971, C7972, C7981, C7982, C7989, C799, C7B00, C7B01, C7B02, C7B03, C7B04, C7B09, C7B1, C7B8, C800.

### Orthopedics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Other musculoskelet sys & conn tiss O.R. proc (cont.)	515 (cont.)	0QCS0ZZ, 0QCS3ZZ, 0QCS4ZZ, 0QH004Z, 0QH005Z, 0QH034Z, 0QH035Z, 0QH044Z, 0QH045Z, 0QH104Z, 0QH105Z, 0QH134Z, 0QH135Z, 0QH144Z, 0QH145Z, 0QH204Z, 0QH205Z, 0QH234Z, 0QH235Z, 0QH244Z, 0QH245Z, 0QH304Z, 0QH305Z, 0QH334Z, 0QH335Z, 0QH344Z, 0QH345Z, 0QH404Z, 0QH405Z, 0QH434Z, 0QH435Z, 0QH444Z, 0QH445Z, 0QH504Z, 0QH505Z, 0QH534Z, 0QH535Z, 0QH544Z, 0QH545Z, 0QH04Z, 0QH05Z, 0QH034Z, 0QH035Z, 0QH044Z, 0QH045Z, 0QHR04Z, 0QHR05Z, 0QHR34Z, 0QHR35Z, 0QHR44Z, 0QHR45Z, 0QHS04Z, 0QHS05Z, 0QHS34Z, 0QHS35Z, 0QHS44Z, 0QHS45Z, 0QHY0MZ, 0QHY3MZ, 0QHY4MZ, 0QN00ZZ, 0QN03ZZ, 0QN04ZZ, 0QN10ZZ, 0QN13ZZ, 0QN14ZZ, 0QN20ZZ, 0QN23ZZ, 0QN24ZZ, 0QN30ZZ, 0QN33ZZ, 0QN34ZZ, 0QN40ZZ, 0QN43ZZ, 0QN44ZZ, 0QN50ZZ, 0QN53ZZ, 0QN54ZZ, 0QNO0ZZ, 0QNO3ZZ, 0QNO4ZZ, 0QNR0ZZ, 0QNR3ZZ, 0QNR4ZZ, 0QNS0ZZ, 0QNS3ZZ, 0QNS4ZZ, 0QQ00ZZ, 0QQ03ZZ, 0QQ04ZZ, 0QQ10ZZ, 0QQ13ZZ, 0QQ14ZZ, 0QQ20ZZ, 0QQ23ZZ, 0QQ24ZZ, 0QQ30ZZ, 0QQ33ZZ, 0QQ34ZZ, 0QQ40ZZ, 0QQ43ZZ, 0QQ44ZZ, 0QQ50ZZ, 0QQ53ZZ, 0QQ54ZZ, 0QQD3ZZ, 0QQF3ZZ, 0QQQ0ZZ, 0QQQ3ZZ, 0QQQ4ZZ, 0QQR0ZZ, 0QQR3ZZ, 0QQR4ZZ, 0QQS0ZZ, 0QQS3ZZ, 0QQS4ZZ, 0QR007Z, 0QR00JZ, 0QR00KZ, 0QR037Z, 0QR03JZ, 0QR03KZ, 0QR047Z, 0QR04JZ, 0QR04KZ, 0QR107Z, 0QR10JZ, 0QR10KZ, 0QR137Z, 0QR13JZ, 0QR13KZ, 0QR147Z, 0QR14JZ, 0QR14KZ, 0QR207Z, 0QR20JZ, 0QR20KZ, 0QR237Z, 0QR23JZ, 0QR23KZ, 0QR247Z, 0QR24JZ, 0QR24KZ, 0QR307Z, 0QR30JZ, 0QR30KZ, 0QR337Z, 0QR33JZ, 0QR33KZ, 0QR347Z, 0QR34JZ, 0QR34KZ, 0QR407Z, 0QR40JZ, 0QR40KZ, 0QR437Z, 0QR43JZ, 0QR43KZ, 0QR447Z, 0QR44JZ, 0QR44KZ, 0QR507Z, 0QR50JZ, 0QR50KZ, 0QR537Z, 0QR53JZ, 0QR53KZ, 0QR547Z, 0QR54JZ, 0QR54KZ, 0QRQ07Z, 0QRQ0JZ, 0QRQ0KZ, 0QRQ37Z, 0QRQ3JZ, 0QRQ3KZ, 0QRQ47Z, 0QRQ4JZ, 0QRQ4KZ, 0QRR07Z, 0QRR0JZ, 0QRR0KZ, 0QRR37Z, 0QRR3JZ, 0QRR3KZ, 0QRR47Z, 0QRR4JZ, 0QRR4KZ, 0QRS07Z, 0QRS0JZ, 0QRS0KZ, 0QRS37Z, 0QRS3JZ, 0QRS3KZ, 0QRS47Z, 0QRS4JZ, 0QRS4KZ, 0QS03ZZ, 0QS13ZZ, 0QS204Z, 0QS205Z, 0QS20ZZ, 0QS234Z, 0QS235Z, 0QS244Z, 0QS245Z, 0QS304Z, 0QS305Z, 0QS30ZZ, 0QS334Z, 0QS335Z, 0QS344Z, 0QS345Z, 0QS404Z, 0QS40ZZ, 0QS434Z, 0QS444Z, 0QS504Z, 0QS50ZZ, 0QS534Z, 0QS544Z, 0QSD04Z, 0QSD0ZZ, 0QSD34Z, 0QSD44Z, 0QSF04Z, 0QSF0ZZ, 0QSF34Z, 0QSF44Z, 0QSQ05Z, 0QSQ35Z, 0QSQ45Z, 0QSR05Z, 0QSR35Z, 0QSR45Z, 0QT20ZZ, 0QT30ZZ, 0QT40ZZ, 0QT50ZZ, 0QTQ0ZZ,

\*Exclude principle diagnosis of metastatic cancer for all except MS-DRGs 542-544 or DRGs 456-458: C770, C771, C772, C773, C774, C775, C778, C779, C7800, C7801, C7802, C781, C782, C7830, C7839, C784, C785, C786, C787, C7880, C7889, C7900, C7901, C7902, C7910, C7911, C7919, C792, C7931, C7932, C7940, C7949, C7951, C7952, C7960, C7961, C7962, C7963, C7970, C7971, C7972, C7981, C7982, C7989, C799, C7B00, C7B01, C7B02, C7B03, C7B04, C7B09, C7B1, C7B8, C800.

### Orthopedics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Other musculoskelet sys & conn tiss O.R. proc (cont.)	515 (cont.)	0QTR0ZZ, 0QTS0ZZ, 0QU007Z, 0QU00JZ, 0QU00KZ, 0QU037Z, 0QU03JZ, 0QU03KZ, 0QU047Z, 0QU04JZ, 0QU04KZ, 0QU107Z, 0QU10JZ, 0QU10KZ, 0QU137Z, 0QU13JZ, 0QU13KZ, 0QU147Z, 0QU14JZ, 0QU14KZ, 0QU207Z, 0QU20JZ, 0QU20KZ, 0QU237Z, 0QU23JZ, 0QU23KZ, 0QU247Z, 0QU24JZ, 0QU24KZ, 0QU307Z, 0QU30JZ, 0QU30KZ, 0QU337Z, 0QU33JZ, 0QU33KZ, 0QU347Z, 0QU34JZ, 0QU34KZ, 0QU407Z, 0QU40JZ, 0QU40KZ, 0QU437Z, 0QU43JZ, 0QU43KZ, 0QU447Z, 0QU44JZ, 0QU44KZ, 0QU507Z, 0QU50JZ, 0QU50KZ, 0QU537Z, 0QU53JZ, 0QU53KZ, 0QU547Z, 0QU54JZ, 0QU54KZ, 0QUQ07Z, 0QUQ0JZ, 0QUQ0KZ, 0QUQ37Z, 0QUQ3JZ, 0QUQ3KZ, 0QUQ47Z, 0QUQ4JZ, 0QUQ4KZ, 0QUR07Z, 0QUR0JZ, 0QUR0KZ, 0QUR37Z, 0QUR3JZ, 0QUR3KZ, 0QUR47Z, 0QUR4JZ, 0QUR4KZ, 0QUS07Z, 0QUS0JZ, 0QUS0KZ, 0QUS37Z, 0QUS3JZ, 0QUS3KZ, 0QUS47Z, 0QUS4JZ, 0QUS4KZ, 0R9000Z, 0R900ZZ, 0R9100Z, 0R910ZZ, 0R9300Z, 0R930ZZ, 0R9400Z, 0R940ZZ, 0R9500Z, 0R950ZZ, 0R9600Z, 0R960ZZ, 0R9900Z, 0R990ZZ, 0R9A00Z, 0R9A0ZZ, 0R9B00Z, 0R9B0ZZ, 0RC00ZZ, 0RC03ZZ, 0RC04ZZ, 0RC10ZZ, 0RC13ZZ, 0RC14ZZ, 0RC30ZZ, 0RC33ZZ, 0RC34ZZ, 0RC40ZZ, 0RC43ZZ, 0RC44ZZ, 0RC50ZZ, 0RC53ZZ, 0RC54ZZ, 0RC60ZZ, 0RC63ZZ, 0RC64ZZ, 0RC90ZZ, 0RC93ZZ, 0RC94ZZ, 0RCA0ZZ, 0RCA3ZZ, 0RCA4ZZ, 0RCB0ZZ, 0RCB3ZZ, 0RCB4ZZ, 0RCC0ZZ, 0RCC3ZZ, 0RCC4ZZ, 0RCD0ZZ, 0RCD3ZZ, 0RCD4ZZ, 0RGC04Z, 0RGC07Z, 0RGC0JZ, 0RGC0KZ, 0RGC0ZZ, 0RGC34Z, 0RGC37Z, 0RGC3JZ, 0RGC3KZ, 0RGC3ZZ, 0RGC44Z, 0RGC47Z, 0RGC4JZ, 0RGC4KZ, 0RGC4ZZ, 0RGD04Z, 0RGD07Z, 0RGD0JZ, 0RGD0KZ, 0RGD0ZZ, 0RGD34Z, 0RGD37Z, 0RGD3JZ, 0RGD3KZ, 0RGD3ZZ, 0RGD44Z, 0RGD47Z, 0RGD4JZ, 0RGD4KZ, 0RGD4ZZ, 0RH004Z, 0RH034Z, 0RH044Z, 0RH104Z, 0RH134Z, 0RH144Z, 0RH404Z, 0RH434Z, 0RH444Z, 0RH604Z, 0RH634Z, 0RH644Z, 0RHA04Z, 0RHA34Z, 0RHA44Z, 0RJ00ZZ, 0RJ10ZZ, 0RJ30ZZ, 0RJ40ZZ, 0RJ50ZZ, 0RJ60ZZ, 0RJ90ZZ, 0RJA0ZZ, 0RJB0ZZ, 0RP000Z, 0RP003Z, 0RP004Z, 0RP007Z, 0RP00AZ, 0RP00KZ, 0RP034Z, 0RP037Z, 0RP03AZ, 0RP03KZ, 0RP040Z, 0RP043Z, 0RP044Z, 0RP047Z, 0RP04AZ, 0RP04KZ, 0RP100Z, 0RP103Z, 0RP104Z, 0RP107Z, 0RP10AZ, 0RP10KZ, 0RP134Z, 0RP137Z, 0RP13AZ, 0RP13KZ, 0RP140Z, 0RP143Z, 0RP144Z, 0RP147Z, 0RP14AZ, 0RP14KZ, 0RP300Z, 0RP303Z, 0RP307Z, 0RP30KZ, 0RP337Z, 0RP33KZ, 0RP340Z, 0RP343Z, 0RP347Z, 0RP34KZ, 0RP400Z, 0RP403Z, 0RP404Z, 0RP407Z, 0RP40AZ, 0RP40KZ, 0RP434Z, 0RP437Z, 0RP43AZ, 0RP43KZ, 0RP440Z, 0RP443Z, 0RP444Z, 0RP447Z,

\*Exclude principle diagnosis of metastatic cancer for all except MS-DRGs 542-544 or DRGs 456-458: C770, C771, C772, C773, C774, C775, C778, C779, C7800, C7801, C7802, C781, C782, C7830, C7839, C784, C785, C786, C787, C7880, C7889, C7900, C7901, C7902, C7910, C7911, C7919, C792, C7931, C7932, C7940, C7949, C7951, C7952, C7960, C7961, C7962, C7963, C7970, C7971, C7972, C7981, C7982, C7989, C799, C7B00, C7B01, C7B02, C7B03, C7B04, C7B09, C7B1, C7B8, C800.

### Orthopedics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Other musculoskelet sys & conn tiss O.R. proc (cont.)	515 (cont.)	ORP44AZ, ORP44KZ, ORP500Z, ORP503Z, ORP507Z, ORP50KZ, ORP537Z, ORP53KZ, ORP540Z, ORP543Z, ORP547Z, ORP54KZ, ORP600Z, ORP603Z, ORP604Z, ORP607Z, ORP60AZ, ORP60KZ, ORP634Z, ORP637Z, ORP63AZ, ORP63KZ, ORP640Z, ORP643Z, ORP644Z, ORP647Z, ORP64AZ, ORP64KZ, ORP900Z, ORP903Z, ORP907Z, ORP90KZ, ORP937Z, ORP93KZ, ORP940Z, ORP943Z, ORP947Z, ORP94KZ, ORPA00Z, ORPA03Z, ORPA04Z, ORPA07Z, ORPA0AZ, ORPA0KZ, ORPA34Z, ORPA37Z, ORPA3AZ, ORPA3KZ, ORPA40Z, ORPA43Z, ORPA44Z, ORPA47Z, ORPA4AZ, ORPA4KZ, ORPB00Z, ORPB03Z, ORPB07Z, ORPB0KZ, ORPB37Z, ORPB3KZ, ORPB40Z, ORPB43Z, ORPB47Z, ORPB4KZ, ORQ00ZZ, ORQ03ZZ, ORQ04ZZ, ORQ10ZZ, ORQ13ZZ, ORQ14ZZ, ORQ30ZZ, ORQ33ZZ, ORQ34ZZ, ORQ40ZZ, ORQ43ZZ, ORQ44ZZ, ORQ50ZZ, ORQ53ZZ, ORQ54ZZ, ORQ60ZZ, ORQ63ZZ, ORQ64ZZ, ORQ90ZZ, ORQ93ZZ, ORQ94ZZ, ORQA0ZZ, ORQA3ZZ, ORQA4ZZ, ORQB0ZZ, ORQB3ZZ, ORQB4ZZ, ORQC0ZZ, ORQC3ZZ, ORQC4ZZ, ORQD0ZZ, ORQD3ZZ, ORQD4ZZ, ORR007Z, ORR00JZ, ORR00KZ, ORR107Z, ORR10JZ, ORR10KZ, ORR307Z, ORR30KZ, ORR407Z, ORR40JZ, ORR40KZ, ORR507Z, ORR50KZ, ORR607Z, ORR60JZ, ORR60KZ, ORR907Z, ORR90KZ, ORRA07Z, ORRA0JZ, ORRA0KZ, ORRB07Z, ORRB0KZ, ORRC07Z, ORRC0JZ, ORRC0KZ, ORRD07Z, ORRD0JZ, ORRD0KZ, ORS004Z, ORS00ZZ, ORS104Z, ORS10ZZ, ORS404Z, ORS40ZZ, ORS604Z, ORS60ZZ, ORSA04Z, ORSA0ZZ, ORSC04Z, ORSC0ZZ, ORSD04Z, ORSD0ZZ, ORTC0ZZ, ORTD0ZZ, ORU007Z, ORU00JZ, ORU00KZ, ORU037Z, ORU03KZ, ORU047Z, ORU04KZ, ORU107Z, ORU10KZ, ORU137Z, ORU13KZ, ORU147Z, ORU14KZ, ORU407Z, ORU40KZ, ORU437Z, ORU43KZ, ORU447Z, ORU44KZ, ORU507Z, ORU50KZ, ORU537Z, ORU53KZ, ORU547Z, ORU54KZ, ORU607Z, ORU60KZ, ORU637Z, ORU63KZ, ORU647Z, ORU64KZ, ORUA07Z, ORUA0KZ, ORUA37Z, ORUA3KZ, ORUA47Z, ORUA4KZ, ORUC07Z, ORUC0JZ, ORUC0KZ, ORUC37Z, ORUC3JZ, ORUC3KZ, ORUC47Z, ORUC4JZ, ORUC4KZ, ORUD07Z, ORUD0JZ, ORUD0KZ, ORUD37Z, ORUD3JZ, ORUD3KZ, ORUD47Z, ORUD4JZ, ORUD4KZ, ORW000Z, ORW003Z, ORW004Z, ORW007Z, ORW008Z, ORW00AZ, ORW00JZ, ORW00KZ, ORW030Z, ORW033Z, ORW034Z, ORW037Z, ORW038Z, ORW03AZ, ORW03JZ, ORW03KZ, ORW040Z, ORW043Z, ORW044Z, ORW047Z, ORW048Z, ORW04AZ, ORW04JZ, ORW04KZ, ORW100Z, ORW103Z, ORW104Z, ORW107Z, ORW108Z, ORW10AZ, ORW10JZ, ORW10KZ, ORW130Z, ORW133Z, ORW134Z, ORW137Z, ORW138Z, ORW13AZ, ORW13JZ, ORW13KZ, ORW140Z, ORW143Z, ORW144Z, ORW147Z, ORW148Z,

\*Exclude principle diagnosis of metastatic cancer for all except MS-DRGs 542-544 or DRGs 456-458: C770, C771, C772, C773, C774, C775, C778, C779, C7800, C7801, C7802, C781, C782, C7830, C7839, C784, C785, C786, C787, C7880, C7889, C7900, C7901, C7902, C7910, C7911, C7919, C792, C7931, C7932, C7940, C7949, C7951, C7952, C7960, C7961, C7962, C7963, C7963, C7970, C7971, C7972, C7981, C7982, C7989, C799, C7B00, C7B01, C7B02, C7B03, C7B04, C7B09, C7B1, C7B8, C800.

### Orthopedics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Other musculoskelet sys & conn tiss O.R. proc (cont.)	515 (cont.)	0RW14AZ, 0RW14JZ, 0RW14KZ, 0RW300Z, 0RW303Z, 0RW307Z, 0RW30KZ, 0RW330Z, 0RW333Z, 0RW337Z, 0RW33KZ, 0RW340Z, 0RW343Z, 0RW347Z, 0RW34KZ, 0RW400Z, 0RW403Z, 0RW404Z, 0RW407Z, 0RW408Z, 0RW40AZ, 0RW40JZ, 0RW40KZ, 0RW430Z, 0RW433Z, 0RW434Z, 0RW437Z, 0RW438Z, 0RW43AZ, 0RW43JZ, 0RW43KZ, 0RW440Z, 0RW443Z, 0RW444Z, 0RW447Z, 0RW448Z, 0RW44AZ, 0RW44JZ, 0RW44KZ, 0RW500Z, 0RW503Z, 0RW507Z, 0RW50KZ, 0RW530Z, 0RW533Z, 0RW537Z, 0RW53KZ, 0RW540Z, 0RW543Z, 0RW547Z, 0RW54KZ, 0RW600Z, 0RW603Z, 0RW604Z, 0RW607Z, 0RW608Z, 0RW60AZ, 0RW60JZ, 0RW60KZ, 0RW630Z, 0RW633Z, 0RW634Z, 0RW637Z, 0RW638Z, 0RW63AZ, 0RW63JZ, 0RW63KZ, 0RW640Z, 0RW643Z, 0RW644Z, 0RW647Z, 0RW648Z, 0RW64AZ, 0RW64JZ, 0RW64KZ, 0RW900Z, 0RW903Z, 0RW907Z, 0RW90KZ, 0RW930Z, 0RW933Z, 0RW937Z, 0RW93KZ, 0RW940Z, 0RW943Z, 0RW947Z, 0RW94KZ, 0RWA00Z, 0RWA03Z, 0RWA04Z, 0RWA07Z, 0RWA08Z, 0RWA0AZ, 0RWA0JZ, 0RWA0KZ, 0RWA30Z, 0RWA33Z, 0RWA34Z, 0RWA37Z, 0RWA38Z, 0RWA3AZ, 0RWA3JZ, 0RWA3KZ, 0RWA40Z, 0RWA43Z, 0RWA44Z, 0RWA47Z, 0RWA48Z, 0RWA4AZ, 0RWA4JZ, 0RWA4KZ, 0RWB00Z, 0RWB03Z, 0RWB07Z, 0RWB0KZ, 0RWB30Z, 0RWB33Z, 0RWB37Z, 0RWB3KZ, 0RWB40Z, 0RWB43Z, 0RWB47Z, 0RWB4KZ, 0RWG0JZ, 0RWG3JZ, 0RWG4JZ, 0RWH0JZ, 0RWH3JZ, 0RWH4JZ, 0RWJ0JZ, 0RWJ3JZ, 0RWJ4JZ, 0RWK0JZ, 0RWK3JZ, 0RWK4JZ, 0RWL0JZ, 0RWL3JZ, 0RWL4JZ, 0RWM0JZ, 0RWM3JZ, 0RWM4JZ, 0RWN0JZ, 0RWN3JZ, 0RWN4JZ, 0RWP0JZ, 0RWP3JZ, 0RWP4JZ, 0RWQ0JZ, 0RWQ3JZ, 0RWQ4JZ, 0RWR0JZ, 0RWR3JZ, 0RWR4JZ, 0RWS0JZ, 0RWS3JZ, 0RWS4JZ, 0RWT0JZ, 0RWT3JZ, 0RWT4JZ, 0RWU0JZ, 0RWU3JZ, 0RWU4JZ, 0RWV0JZ, 0RWV3JZ, 0RWV4JZ, 0RWW0JZ, 0RWW3JZ, 0RWW4JZ, 0RWX0JZ, 0RWX3JZ, 0RWX4JZ, 0S9000Z, 0S900ZZ, 0S9200Z, 0S920ZZ, 0S9300Z, 0S930ZZ, 0S9400Z, 0S940ZZ, 0S9500Z, 0S950ZZ, 0S9600Z, 0S960ZZ, 0S9700Z, 0S970ZZ, 0S9800Z, 0S980ZZ, 0SC00ZZ, 0SC03ZZ, 0SC04ZZ, 0SC20ZZ, 0SC23ZZ, 0SC24ZZ, 0SC30ZZ, 0SC33ZZ, 0SC34ZZ, 0SC40ZZ, 0SC43ZZ, 0SC44ZZ, 0SC50ZZ, 0SC53ZZ, 0SC54ZZ, 0SC60ZZ, 0SC63ZZ, 0SC64ZZ, 0SC70ZZ, 0SC73ZZ, 0SC74ZZ, 0SC80ZZ, 0SC83ZZ, 0SC84ZZ, 0SH004Z, 0SH034Z, 0SH044Z, 0SH304Z, 0SH334Z, 0SH344Z, 0SH504Z, 0SH534Z, 0SH544Z, 0SH604Z, 0SH634Z, 0SH644Z, 0SH704Z, 0SH734Z, 0SH744Z, 0SH804Z, 0SH834Z, 0SH844Z, 0SJ00ZZ, 0SJ20ZZ, 0SJ30ZZ, 0SJ40ZZ, 0SJ50ZZ, 0SJ60ZZ, 0SJ70ZZ, 0SJ80ZZ, 0SP000Z, 0SP003Z, 0SP004Z, 0SP007Z, 0SP00AZ, 0SP00KZ, 0SP034Z, 0SP037Z, 0SP03AZ, 0SP03KZ, 0SP040Z, 0SP043Z, 0SP044Z,

\*Exclude principle diagnosis of metastatic cancer for all except MS-DRGs 542-544 or DRGs 456-458: C770, C771, C772, C773, C774, C775, C778, C779, C7800, C7801, C7802, C781, C782, C7830, C7839, C784, C785, C786, C787, C7880, C7889, C7900, C7901, C7902, C7910, C7911, C7919, C792, C7931, C7932, C7940, C7949, C7951, C7952, C7960, C7961, C7962, C7963, C7970, C7971, C7972, C7981, C7982, C7989, C799, C7B00, C7B01, C7B02, C7B03, C7B04, C7B09, C7B1, C7B8, C800.



### Orthopedics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Other musculoskelet sys & conn tiss O.R. proc (cont.)	515 (cont.)	OSP047Z, OSP04AZ, OSP04KZ, OSP200Z, OSP203Z, OSP207Z, OSP20KZ, OSP237Z, OSP23KZ, OSP240Z, OSP243Z, OSP247Z, OSP24KZ, OSP300Z, OSP303Z, OSP304Z, OSP307Z, OSP30AZ, OSP30KZ, OSP334Z, OSP337Z, OSP33AZ, OSP33KZ, OSP340Z, OSP343Z, OSP344Z, OSP347Z, OSP34AZ, OSP34KZ, OSP400Z, OSP403Z, OSP407Z, OSP40KZ, OSP437Z, OSP43KZ, OSP440Z, OSP443Z, OSP447Z, OSP44KZ, OSP500Z, OSP503Z, OSP504Z, OSP507Z, OSP50KZ, OSP534Z, OSP537Z, OSP53KZ, OSP540Z, OSP543Z, OSP544Z, OSP547Z, OSP54KZ, OSP600Z, OSP603Z, OSP604Z, OSP607Z, OSP60KZ, OSP634Z, OSP637Z, OSP63KZ, OSP640Z, OSP643Z, OSP644Z, OSP647Z, OSP64KZ, OSP700Z, OSP703Z, OSP704Z, OSP707Z, OSP70KZ, OSP734Z, OSP737Z, OSP73KZ, OSP740Z, OSP743Z, OSP744Z, OSP747Z, OSP74KZ, OSP800Z, OSP803Z, OSP804Z, OSP807Z, OSP80KZ, OSP834Z, OSP837Z, OSP83KZ, OSP840Z, OSP843Z, OSP844Z, OSP847Z, OSP84KZ, OSQ00ZZ, OSQ03ZZ, OSQ04ZZ, OSQ20ZZ, OSQ23ZZ, OSQ24ZZ, OSQ30ZZ, OSQ33ZZ, OSQ34ZZ, OSQ40ZZ, OSQ43ZZ, OSQ44ZZ, OSQ50ZZ, OSQ53ZZ, OSQ54ZZ, OSQ60ZZ, OSQ63ZZ, OSQ64ZZ, OSQ70ZZ, OSQ73ZZ, OSQ74ZZ, OSQ80ZZ, OSQ83ZZ, OSQ84ZZ, OSQH0ZZ, OSQH3ZZ, OSQH4ZZ, OSQJ0ZZ, OSQJ3ZZ, OSQJ4ZZ, OSQK0ZZ, OSQK3ZZ, OSQK4ZZ, OSQL0ZZ, OSQL3ZZ, OSQL4ZZ, OSQM0ZZ, OSQM3ZZ, OSQM4ZZ, OSQN0ZZ, OSQN3ZZ, OSQN4ZZ, OSQP0ZZ, OSQP3ZZ, OSQP4ZZ, OSQQ0ZZ, OSQQ3ZZ, OSQQ4ZZ, OSR007Z, OSR00JZ, OSR00KZ, OSR207Z, OSR20KZ, OSR307Z, OSR30JZ, OSR30KZ, OSR407Z, OSR40KZ, OSR507Z, OSR50JZ, OSR50KZ, OSR607Z, OSR60JZ, OSR60KZ, OSR707Z, OSR70JZ, OSR70KZ, OSR807Z, OSR80JZ, OSR80KZ, OSS004Z, OSS00ZZ, OSS304Z, OSS30ZZ, OSS504Z, OSS50ZZ, OSS604Z, OSS60ZZ, OSS704Z, OSS70ZZ, OSS804Z, OSS80ZZ, OST50ZZ, OST60ZZ, OST70ZZ, OST80ZZ, OSU007Z, OSU00KZ, OSU037Z, OSU03KZ, OSU047Z, OSU04KZ, OSU307Z, OSU30KZ, OSU337Z, OSU33KZ, OSU347Z, OSU34KZ, OSU507Z, OSU50KZ, OSU537Z, OSU53KZ, OSU547Z, OSU54KZ, OSU607Z, OSU60KZ, OSU637Z, OSU63KZ, OSU647Z, OSU64KZ, OSU707Z, OSU70JZ, OSU70KZ, OSU737Z, OSU73JZ, OSU73KZ, OSU747Z, OSU74JZ, OSU74KZ, OSU807Z, OSU80JZ, OSU80KZ, OSU837Z, OSU83JZ, OSU83KZ, OSU847Z, OSU84JZ, OSU84KZ, OSU907Z, OSU909Z, OSU90JZ, OSU90KZ, OSU937Z, OSU93JZ, OSU93KZ, OSU947Z, OSU94JZ, OSU94KZ, OSUA09Z, OSUB07Z, OSUB09Z, OSUB0JZ, OSUB0KZ, OSUB37Z, OSUB3JZ, OSUB3KZ, OSUB47Z, OSUB4JZ, OSUB4KZ, OSUC07Z, OSUC09C, OSUC09Z, OSUC0JZ, OSUC0KZ, OSUC37Z, OSUC3JZ, OSUC3KZ, OSUC47Z, OSUC4JZ, OSUC4KZ, OSUD07Z, OSUD09C, OSUD09Z, OSUD0JZ, OSUD0KZ, OSUD37Z, OSUD3JZ, OSUD3KZ, OSUD47Z, OSUD4JZ, OSUD4KZ, OSUE09Z, OSUF07Z, OSUF0JZ,

\*Exclude principle diagnosis of metastatic cancer for all except MS-DRGs 542-544 or DRGs 456-458: C770, C771, C772, C773, C774, C775, C778, C779, C7800, C7801, C7802, C781, C782, C7830, C7839, C784, C785, C786, C787, C7880, C7889, C7900, C7901, C7902, C7910, C7911, C7919, C792, C7931, C7932, C7940, C7949, C7951, C7952, C7960, C7961, C7962, C7963, C7963, C7970, C7971, C7972, C7981, C7982, C7989, C799, C7B00, C7B01, C7B02, C7B03, C7B04, C7B09, C7B1, C7B8, C800.

### Orthopedics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Other musculoskelet sys & conn tiss O.R. proc (cont.)	515 (cont.)	0SUF0KZ, 0SUF37Z, 0SUF3JZ, 0SUF3KZ, 0SUF47Z, 0SUF4JZ, 0SUF4KZ, 0SUG07Z, 0SUG0JZ, 0SUG0KZ, 0SUG37Z, 0SUG3JZ, 0SUG3KZ, 0SUG47Z, 0SUG4JZ, 0SUG4KZ, 0SUH07Z, 0SUH0JZ, 0SUH0KZ, 0SUH37Z, 0SUH3JZ, 0SUH3KZ, 0SUH47Z, 0SUH4JZ, 0SUH4KZ, 0SUJ07Z, 0SUJ0JZ, 0SUJ0KZ, 0SUJ37Z, 0SUJ3JZ, 0SUJ3KZ, 0SUJ47Z, 0SUJ4JZ, 0SUJ4KZ, 0SUK07Z, 0SUK0JZ, 0SUK0KZ, 0SUK37Z, 0SUK3JZ, 0SUK3KZ, 0SUK47Z, 0SUK4JZ, 0SUK4KZ, 0SUL07Z, 0SUL0JZ, 0SUL0KZ, 0SUL37Z, 0SUL3JZ, 0SUL3KZ, 0SUL47Z, 0SUL4JZ, 0SUL4KZ, 0SUM07Z, 0SUM0JZ, 0SUM0KZ, 0SUM37Z, 0SUM3JZ, 0SUM3KZ, 0SUM47Z, 0SUM4JZ, 0SUM4KZ, 0SUN07Z, 0SUN0JZ, 0SUN0KZ, 0SUN37Z, 0SUN3JZ, 0SUN3KZ, 0SUN47Z, 0SUN4JZ, 0SUN4KZ, 0SUP07Z, 0SUP0JZ, 0SUP0KZ, 0SUP37Z, 0SUP3JZ, 0SUP3KZ, 0SUP47Z, 0SUP4JZ, 0SUP4KZ, 0SUQ07Z, 0SUQ0JZ, 0SUQ0KZ, 0SUQ37Z, 0SUQ3JZ, 0SUQ3KZ, 0SUQ47Z, 0SUQ4JZ, 0SUQ4KZ, 0SUR09Z, 0SUS09Z, 0SUT09Z, 0SUU09Z, 0SUV09Z, 0SUW09Z, 0SW000Z, 0SW003Z, 0SW004Z, 0SW007Z, 0SW008Z, 0SW00AZ, 0SW00JZ, 0SW00KZ, 0SW030Z, 0SW033Z, 0SW034Z, 0SW037Z, 0SW038Z, 0SW03AZ, 0SW03JZ, 0SW03KZ, 0SW040Z, 0SW043Z, 0SW044Z, 0SW047Z, 0SW048Z, 0SW04AZ, 0SW04JZ, 0SW04KZ, 0SW200Z, 0SW203Z, 0SW207Z, 0SW20KZ, 0SW230Z, 0SW233Z, 0SW237Z, 0SW23KZ, 0SW240Z, 0SW243Z, 0SW247Z, 0SW24KZ, 0SW300Z, 0SW303Z, 0SW304Z, 0SW307Z, 0SW308Z, 0SW30AZ, 0SW30JZ, 0SW30KZ, 0SW330Z, 0SW333Z, 0SW334Z, 0SW337Z, 0SW338Z, 0SW33AZ, 0SW33JZ, 0SW33KZ, 0SW340Z, 0SW343Z, 0SW344Z, 0SW347Z, 0SW348Z, 0SW34AZ, 0SW34JZ, 0SW34KZ, 0SW400Z, 0SW403Z, 0SW407Z, 0SW40KZ, 0SW430Z, 0SW433Z, 0SW437Z, 0SW43KZ, 0SW440Z, 0SW443Z, 0SW447Z, 0SW44KZ, 0SW500Z, 0SW503Z, 0SW504Z, 0SW507Z, 0SW508Z, 0SW50JZ, 0SW50KZ, 0SW530Z, 0SW533Z, 0SW534Z, 0SW537Z, 0SW538Z, 0SW53JZ, 0SW53KZ, 0SW540Z, 0SW543Z, 0SW544Z, 0SW547Z, 0SW548Z, 0SW54JZ, 0SW54KZ, 0SW600Z, 0SW603Z, 0SW604Z, 0SW607Z, 0SW608Z, 0SW60JZ, 0SW60KZ, 0SW630Z, 0SW633Z, 0SW634Z, 0SW637Z, 0SW638Z, 0SW63JZ, 0SW63KZ, 0SW640Z, 0SW643Z, 0SW644Z, 0SW647Z, 0SW648Z, 0SW64JZ, 0SW64KZ, 0SW700Z, 0SW703Z, 0SW704Z, 0SW707Z, 0SW708Z, 0SW70JZ, 0SW70KZ, 0SW730Z, 0SW733Z, 0SW734Z, 0SW737Z, 0SW738Z, 0SW73JZ, 0SW73KZ, 0SW740Z, 0SW743Z, 0SW744Z, 0SW747Z, 0SW748Z, 0SW74JZ, 0SW74KZ, 0SW800Z, 0SW803Z, 0SW804Z, 0SW807Z, 0SW808Z, 0SW80JZ, 0SW80KZ, 0SW830Z, 0SW833Z, 0SW834Z, 0SW837Z, 0SW838Z, 0SW83JZ,

\*Exclude principle diagnosis of metastatic cancer for all except MS-DRGs 542-544 or DRGs 456-458: C770, C771, C772, C773, C774, C775, C778, C779, C7800, C7801, C7802, C781, C782, C7830, C7839, C784, C785, C786, C787, C7880, C7889, C7900, C7901, C7902, C7910, C7911, C7919, C792, C7931, C7932, C7940, C7949, C7951, C7952, C7960, C7961, C7962, C7963, C7970, C7971, C7972, C7981, C7982, C7989, C799, C7B00, C7B01, C7B02, C7B03, C7B04, C7B09, C7B1, C7B8, C800.

### Orthopedics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Other musculoskelet sys & conn tiss O.R. proc (cont.)	515 (cont.)	0SW83KZ, 0SW840Z, 0SW843Z, 0SW844Z, 0SW847Z, 0SW848Z, 0SW84JZ, 0SW84KZ, 0SWF0JZ, 0SWF3JZ, 0SWF4JZ, 0SWG0JZ, 0SWG3JZ, 0SWG4JZ, 0SWH0JZ, 0SWH3JZ, 0SWH4JZ, 0SWJ0JZ, 0SWJ3JZ, 0SWJ4JZ, 0SWK0JZ, 0SWK3JZ, 0SWK4JZ, 0SWL0JZ, 0SWL3JZ, 0SWL4JZ, 0SWM0JZ, 0SWM3JZ, 0SWM4JZ, 0SWN0JZ, 0SWN3JZ, 0SWN4JZ, 0SWP0JZ, 0SWP3JZ, 0SWP4JZ, 0SWQ0JZ, 0SWQ3JZ, 0SWQ4JZ, 0W0407Z, 0W040JZ, 0W040KZ, 0W040ZZ, 0W0437Z, 0W043JZ, 0W043KZ, 0W043ZZ, 0W0447Z, 0W044JZ, 0W044KZ, 0W044ZZ, 0W0507Z, 0W050JZ, 0W050KZ, 0W050ZZ, 0W0537Z, 0W053JZ, 0W053KZ, 0W053ZZ, 0W0547Z, 0W054JZ, 0W054KZ, 0W054ZZ, 0WU407Z, 0WU40JZ, 0WU40KZ, 0WU447Z, 0WU44JZ, 0WU44KZ, 0WU507Z, 0WU50JZ, 0WU50KZ, 0WU547Z, 0WU54JZ, 0WU54KZ, 0YM20ZZ, 0YM30ZZ, 0YM40ZZ, 0YM50ZZ, 0YM60ZZ, 0YM90ZZ, 0YMB0ZZ
		516	See MS-DRG 515
		517	See MS-DRG 515
S	Back & Neck Procedures Except Spinal Fusion	518	Include all
		519	Include all
		520	Include all
M	Fractures of femur	533	Include all
		534	Include all
M	Fractures of hip & pelvis	535	Include all
		536	Include all
M	Osteomyelitis	539	Include all
		540	Include all
		541	Include all

\*Exclude principle diagnosis of metastatic cancer for all except MS-DRGs 542-544 or DRGs 456-458: C770, C771, C772, C773, C774, C775, C778, C779, C7800, C7801, C7802, C781, C782, C7830, C7839, C784, C785, C786, C787, C7880, C7889, C7900, C7901, C7902, C7910, C7911, C7919, C792, C7931, C7932, C7940, C7949, C7951, C7952, C7960, C7961, C7962, C7963, C7970, C7971, C7972, C7981, C7982, C7989, C799, C7B00, C7B01, C7B02, C7B03, C7B04, C7B09, C7B1, C7B8, C800.

### Orthopedics (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
M	Pathological fractures & musculoskelet & conn tiss malig	542	Include diagnoses: M48.40XA, M48.41XA, M48.42XA, M48.43XA, M48.44XA, M48.45XA, M48.46XA, M48.47XA, M48.48XA, M48.50XA, M48.51XA, M48.52XA, M48.53XA, M48.54XA, M48.55XA, M48.56XA, M48.57XA, M48.58XA, M80.00XA, M80.011A, M80.012A, M80.019A, M80.021A, M80.022A, M80.029A, M80.031A, M80.032A, M80.039A, M80.041A, M80.042A, M80.049A, M80.051A, M80.052A, M80.059A, M80.061A, M80.062A, M80.069A, M80.071A, M80.072A, M80.079A, M80.08XA, M80.80XA, M80.811A, M80.812A, M80.819A, M80.821A, M80.822A, M80.829A, M80.831A, M80.832A, M80.839A, M80.841A, M80.842A, M80.849A, M80.851A, M80.852A, M80.859A, M80.861A, M80.862A, M80.869A, M80.871A, M80.872A, M80.879A, M80.88XA, M84.30XA, M84.311A, M84.312A, M84.319A, M84.321A, M84.322A, M84.329A, M84.331A, M84.332A, M84.333A, M84.334A, M84.339A, M84.341A, M84.342A, M84.343A, M84.344A, M84.345A, M84.346A, M84.350A, M84.351A, M84.352A, M84.353A, M84.359A, M84.361A, M84.362A, M84.363A, M84.364A, M84.369A, M84.371A, M84.372A, M84.373A, M84.374A, M84.375A, M84.376A, M84.377A, M84.378A, M84.379A, M84.38XA, M84.40XA, M84.411A, M84.412A, M84.419A, M84.421A, M84.422A, M84.429A, M84.431A, M84.432A, M84.433A, M84.434A, M84.439A, M84.441A, M84.442A, M84.443A, M84.444A, M84.445A, M84.446A, M84.451A, M84.452A, M84.453A, M84.454A, M84.459A, M84.461A, M84.462A, M84.463A, M84.464A, M84.469A, M84.471A, M84.472A, M84.473A, M84.474A, M84.475A, M84.476A, M84.477A, M84.478A, M84.479A, M84.48XA, M84.50XA, M84.511A, M84.512A, M84.519A, M84.521A, M84.522A, M84.529A, M84.531A, M84.532A, M84.533A, M84.534A, M84.539A, M84.541A, M84.542A, M84.549A, M84.550A, M84.551A, M84.552A, M84.553A, M84.559A, M84.561A, M84.562A, M84.563A, M84.564A, M84.569A, M84.571A, M84.572A, M84.573A, M84.574A, M84.575A, M84.576A, M84.58XA, M84.60XA, M84.611A, M84.612A, M84.619A, M84.621A, M84.622A, M84.629A, M84.631A, M84.632A, M84.633A, M84.634A, M84.639A, M84.641A, M84.642A, M84.649A, M84.650A, M84.651A, M84.652A, M84.653A, M84.659A, M84.661A, M84.662A, M84.663A, M84.664A, M84.669A, M84.671A, M84.672A, M84.673A, M84.674A, M84.675A, M84.676A, M84.68XA, M84.750A, M84.751A, M84.752A, M84.753A, M84.754A, M84.755A, M84.756A, M84.757A, M84.758A, M84.759A
		543	See MS-DRG 542
		544	See MS-DRG 542
S	Limb reattachment, hip & femur proc for multiple significant trauma	956	Include all

\*Exclude principle diagnosis of metastatic cancer for all except MS-DRGs 542-544 or DRGs 456-458: C770, C771, C772, C773, C774, C775, C778, C779, C7800, C7801, C7802, C781, C782, C7830, C7839, C784, C785, C786, C787, C7880, C7889, C7900, C7901, C7902, C7910, C7911, C7919, C792, C7931, C7932, C7940, C7949, C7951, C7952, C7960, C7961, C7962, C7963, C7970, C7971, C7972, C7981, C7982, C7989, C799, C7B00, C7B01, C7B02, C7B03, C7B04, C7B09, C7B1, C7B8, C800.

## Pulmonology & Lung Surgery

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	ECMO or trach w MV 96+ hrs or PDX exc face, mouth & neck w maj O.R.	003	Include all
S	Trach w MV 96+ hrs or PDX exc face, mouth & neck w/o maj O.R.	004	Include all
S	Lung transplant	007	Include all
S	Major chest procedures	163	Include procedures: 02JA0ZZ, 02JY0ZZ, 0B530ZZ, 0B533ZZ, 0B537ZZ, 0B538ZZ, 0B540ZZ, 0B543ZZ, 0B547ZZ, 0B548ZZ, 0B550ZZ, 0B553ZZ, 0B557ZZ, 0B558ZZ, 0B560ZZ, 0B563ZZ, 0B567ZZ, 0B568ZZ, 0B570ZZ, 0B573ZZ, 0B577ZZ, 0B578ZZ, 0B580ZZ, 0B583ZZ, 0B587ZZ, 0B588ZZ, 0B590ZZ, 0B593ZZ, 0B597ZZ, 0B598ZZ, 0B5B0ZZ, 0B5B3ZZ, 0B5B7ZZ, 0B5B8ZZ, 0B5C0ZZ, 0B5C4ZZ, 0B5C7ZZ, 0B5D0ZZ, 0B5D4ZZ, 0B5D7ZZ, 0B5F0ZZ, 0B5F4ZZ, 0B5F7ZZ, 0B5G0ZZ, 0B5G4ZZ, 0B5G7ZZ, 0B5H0ZZ, 0B5H3ZZ, 0B5H7ZZ, 0B5J0ZZ, 0B5J4ZZ, 0B5J7ZZ, 0B5K0ZZ, 0B5K4ZZ, 0B5K7ZZ, 0B5L0ZZ, 0B5L4ZZ, 0B5L7ZZ, 0B5M0ZZ, 0B5M4ZZ, 0B5M7ZZ, 0B5N0ZZ, 0B5N3ZZ, 0B5N4ZZ, 0B5P0ZZ, 0B5P3ZZ, 0B5P4ZZ, 0B5T0ZZ, 0B5T3ZZ, 0B5T4ZZ, 0B9300Z, 0B930ZX, 0B930ZZ, 0B9330Z, 0B933ZZ, 0B9340Z, 0B934ZZ, 0B9370Z, 0B937ZZ, 0B9380Z, 0B938ZZ, 0B9400Z, 0B940ZX, 0B940ZZ, 0B9430Z, 0B943ZZ, 0B9440Z, 0B944ZZ, 0B9480Z, 0B948ZZ, 0B9500Z, 0B950ZX, 0B950ZZ, 0B9530Z, 0B953ZZ, 0B9540Z, 0B954ZZ, 0B9600Z, 0B960ZX, 0B960ZZ, 0B9630Z, 0B963ZZ, 0B9640Z, 0B964ZZ, 0B9700Z, 0B970ZX, 0B970ZZ, 0B9730Z, 0B973ZZ, 0B9740Z, 0B974ZZ, 0B9800Z, 0B980ZX, 0B980ZZ, 0B9830Z, 0B983ZZ, 0B9840Z, 0B984ZZ, 0B9900Z, 0B990ZX, 0B990ZZ, 0B9930Z, 0B993ZZ, 0B9940Z, 0B994ZZ, 0B9B00Z, 0B9B0ZX, 0B9B0ZZ, 0B9B30Z, 0B9B3ZZ, 0B9B40Z, 0B9B4ZZ, 0B9C00Z, 0B9C0ZX, 0B9C0ZZ, 0B9D00Z, 0B9D0ZX, 0B9D0ZZ, 0B9F00Z, 0B9F0ZX, 0B9F0ZZ, 0B9G00Z, 0B9G0ZX, 0B9G0ZZ, 0B9H00Z, 0B9H0ZX, 0B9H0ZZ, 0B9J00Z, 0B9J0ZX, 0B9J0ZZ, 0B9K00Z, 0B9K0ZX, 0B9K0ZZ, 0B9L00Z, 0B9L0ZX, 0B9L0ZZ, 0B9M00Z, 0B9M0ZX, 0B9M0ZZ, 0B9T00Z, 0B9T0ZX, 0B9T0ZZ, 0BB30ZX, 0BB30ZZ, 0BB33ZZ, 0BB37ZZ, 0BB40ZX, 0BB40ZZ, 0BB43ZZ, 0BB47ZZ, 0BB50ZX, 0BB50ZZ, 0BB53ZZ, 0BB57ZZ, 0BB60ZX, 0BB60ZZ, 0BB63ZZ, 0BB67ZZ, 0BB70ZX, 0BB70ZZ, 0BB73ZZ, 0BB77ZZ, 0BB80ZX, 0BB80ZZ, 0BB83ZZ, 0BB87ZZ, 0BB90ZX, 0BB90ZZ, 0BB93ZZ, 0BB97ZZ, 0BBB0ZX, 0BBB0ZZ, 0BBB3ZZ, 0BBB7ZZ, 0BBC0ZX, 0BBC0ZZ, 0BBC3ZZ, 0BBC4ZZ, 0BBC7ZZ, 0BBD0ZX, 0BBD0ZZ, 0BBD3ZZ, 0BBD4ZZ, 0BBD7ZZ, 0BBF0ZX, 0BBF0ZZ, 0BBF3ZZ, 0BBF4ZZ, 0BBF7ZZ, 0BBG0ZX, 0BBG0ZZ, 0BBG3ZZ, 0BBG4ZZ,

**Pulmonology & Lung Surgery (cont.)**

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Major chest procedures (cont.)	163 (cont.)	0BBG7ZZ, 0BBH0ZX, 0BBH0ZZ, 0BBH3ZZ, 0BBH4ZZ, 0BBH7ZZ, 0BBJ0ZX, 0BBJ0ZZ, 0BBJ3ZZ, 0BBJ4ZZ, 0BBJ7ZZ, 0BBK0ZX, 0BBK0ZZ, 0BBK3ZZ, 0BBK4ZZ, 0BBK7ZZ, 0BBL0ZX, 0BBL0ZZ, 0BBL3ZZ, 0BBL4ZZ, 0BBL7ZZ, 0BBM0ZX, 0BBM0ZZ, 0BBM3ZZ, 0BBM7ZZ, 0BBN0ZZ, 0BBN3ZZ, 0BBN4ZZ, 0BBN8ZZ, 0BBP0ZZ, 0BBP3ZZ, 0BBP4ZZ, 0BBP8ZZ, 0BBT0ZX, 0BBT0ZZ, 0BBT3ZX, 0BBT3ZZ, 0BBT4ZX, 0BBT4ZZ, 0BC30ZZ, 0BC33ZZ, 0BC34ZZ, 0BC40ZZ, 0BC43ZZ, 0BC44ZZ, 0BC50ZZ, 0BC53ZZ, 0BC54ZZ, 0BC60ZZ, 0BC63ZZ, 0BC64ZZ, 0BC70ZZ, 0BC73ZZ, 0BC74ZZ, 0BC80ZZ, 0BC83ZZ, 0BC84ZZ, 0BC90ZZ, 0BC93ZZ, 0BC94ZZ, 0BCB0ZZ, 0BCB3ZZ, 0BCB4ZZ, 0BCC0ZZ, 0BCC3ZZ, 0BCC4ZZ, 0BCC7ZZ, 0BCD0ZZ, 0BCD3ZZ, 0BCD4ZZ, 0BCD7ZZ, 0BCD8ZZ, 0BCF0ZZ, 0BCF3ZZ, 0BCF4ZZ, 0BCF7ZZ, 0BCF8ZZ, 0BCG0ZZ, 0BCG3ZZ, 0BCG4ZZ, 0BCG7ZZ, 0BCG8ZZ, 0BCH0ZZ, 0BCH3ZZ, 0BCH4ZZ, 0BCH7ZZ, 0BCH8ZZ, 0BCJ0ZZ, 0BCJ3ZZ, 0BCJ4ZZ, 0BCJ7ZZ, 0BCJ8ZZ, 0BCK0ZZ, 0BCK3ZZ, 0BCK4ZZ, 0BCK7ZZ, 0BCK8ZZ, 0BCL0ZZ, 0BCL3ZZ, 0BCL4ZZ, 0BCL7ZZ, 0BCL8ZZ, 0BCM0ZZ, 0BCM3ZZ, 0BCM4ZZ, 0BCM7ZZ, 0BCM8ZZ, 0BCT0ZZ, 0BCT3ZZ, 0BCT4ZZ, 0BDN0ZX, 0BDN0ZZ, 0BDN3ZX, 0BDN3ZZ, 0BDN4ZX, 0BDN4ZZ, 0BDP0ZX, 0BDP0ZZ, 0BDP3ZX, 0BDP3ZZ, 0BDP4ZX, 0BDP4ZZ, 0BF10ZZ, 0BF13ZZ, 0BF14ZZ, 0BF17ZZ, 0BF18ZZ, 0BF20ZZ, 0BF23ZZ, 0BF24ZZ, 0BF27ZZ, 0BF28ZZ, 0BF30ZZ, 0BF33ZZ, 0BF34ZZ, 0BF40ZZ, 0BF43ZZ, 0BF44ZZ, 0BF50ZZ, 0BF53ZZ, 0BF54ZZ, 0BF60ZZ, 0BF63ZZ, 0BF64ZZ, 0BF70ZZ, 0BF73ZZ, 0BF74ZZ, 0BF80ZZ, 0BF83ZZ, 0BF84ZZ, 0BF90ZZ, 0BF93ZZ, 0BF94ZZ, 0BFB0ZZ, 0BFB3ZZ, 0BFB4ZZ, 0BH002Z, 0BH003Z, 0BH00DZ, 0BH00YZ, 0BH032Z, 0BH033Z, 0BH03DZ, 0BH042Z, 0BH043Z, 0BH04DZ, 0BH04YZ, 0BH30GZ, 0BH33GZ, 0BH34GZ, 0BH37GZ, 0BH40GZ, 0BH43GZ, 0BH44GZ, 0BH47GZ, 0BH50GZ, 0BH53GZ, 0BH54GZ, 0BH57GZ, 0BH60GZ, 0BH63GZ, 0BH64GZ, 0BH67GZ, 0BH70GZ, 0BH73GZ, 0BH74GZ, 0BH77GZ, 0BH80GZ, 0BH83GZ, 0BH84GZ, 0BH87GZ, 0BH90GZ, 0BH93GZ, 0BH94GZ, 0BH97GZ, 0BHB0GZ, 0BHB3GZ, 0BHB4GZ, 0BHB7GZ, 0BHK02Z, 0BHK03Z, 0BHK0YZ, 0BHK32Z, 0BHK33Z, 0BHK42Z, 0BHK43Z, 0BHK4YZ, 0BHL02Z, 0BHL03Z, 0BHL0YZ, 0BHL32Z, 0BHL33Z, 0BHL42Z, 0BHL43Z, 0BHL4YZ, 0BHT02Z, 0BHT0MZ, 0BHT0YZ, 0BHT32Z, 0BHT3MZ, 0BHT3YZ, 0BHT42Z, 0BHT4MZ, 0BHT4YZ, 0BHT7YZ, 0BL30CZ, 0BL30DZ, 0BL30ZZ, 0BL33CZ, 0BL33DZ, 0BL33ZZ, 0BL34CZ, 0BL34DZ, 0BL34ZZ, 0BL37DZ, 0BL37ZZ, 0BL38DZ, 0BL38ZZ, 0BL40CZ, 0BL40DZ, 0BL40ZZ, 0BL43CZ, 0BL43DZ, 0BL43ZZ, 0BL44CZ, 0BL44DZ, 0BL44ZZ, 0BL47DZ, 0BL47ZZ, 0BL48DZ, 0BL48ZZ, 0BL50CZ, 0BL50DZ, 0BL50ZZ, 0BL53CZ, 0BL53DZ, 0BL53ZZ, 0BL54CZ, 0BL54DZ, 0BL54ZZ, 0BL57DZ, 0BL57ZZ, 0BL58DZ, 0BL58ZZ, 0BL60CZ, 0BL60DZ, 0BL60ZZ, 0BL63CZ, 0BL63DZ, 0BL63ZZ, 0BL64CZ, 0BL64DZ, 0BL64ZZ, 0BL67DZ, 0BL67ZZ, 0BL68DZ, 0BL68ZZ, 0BL70CZ, 0BL70DZ, 0BL70ZZ,

**Pulmonology & Lung Surgery (cont.)**

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Major chest procedures (cont.)	163 (cont.)	0BL73CZ, 0BL73DZ, 0BL73ZZ, 0BL74CZ, 0BL74DZ, 0BL74ZZ, 0BL77DZ, 0BL77ZZ, 0BL78DZ, 0BL78ZZ, 0BL80CZ, 0BL80DZ, 0BL80ZZ, 0BL83CZ, 0BL83DZ, 0BL83ZZ, 0BL84CZ, 0BL84DZ, 0BL84ZZ, 0BL87DZ, 0BL87ZZ, 0BL88DZ, 0BL88ZZ, 0BL90CZ, 0BL90DZ, 0BL90ZZ, 0BL93CZ, 0BL93DZ, 0BL93ZZ, 0BL94CZ, 0BL94DZ, 0BL94ZZ, 0BL97DZ, 0BL97ZZ, 0BL98DZ, 0BL98ZZ, 0BLB0CZ, 0BLB0DZ, 0BLB0ZZ, 0BLB3CZ, 0BLB3DZ, 0BLB3ZZ, 0BLB4CZ, 0BLB4DZ, 0BLB4ZZ, 0BLB7DZ, 0BLB7ZZ, 0BLB8DZ, 0BLB8ZZ, 0BM10ZZ, 0BM20ZZ, 0BM30ZZ, 0BM40ZZ, 0BM50ZZ, 0BM60ZZ, 0BM70ZZ, 0BM80ZZ, 0BM90ZZ, 0BMB0ZZ, 0BMC0ZZ, 0BMD0ZZ, 0BMF0ZZ, 0BMG0ZZ, 0BMH0ZZ, 0BMJ0ZZ, 0BMK0ZZ, 0BML0ZZ, 0BMT0ZZ, 0BN30ZZ, 0BN33ZZ, 0BN34ZZ, 0BN37ZZ, 0BN38ZZ, 0BN40ZZ, 0BN43ZZ, 0BN44ZZ, 0BN47ZZ, 0BN48ZZ, 0BN50ZZ, 0BN53ZZ, 0BN54ZZ, 0BN57ZZ, 0BN58ZZ, 0BN60ZZ, 0BN63ZZ, 0BN64ZZ, 0BN67ZZ, 0BN68ZZ, 0BN70ZZ, 0BN73ZZ, 0BN74ZZ, 0BN77ZZ, 0BN78ZZ, 0BN80ZZ, 0BN83ZZ, 0BN84ZZ, 0BN87ZZ, 0BN88ZZ, 0BN90ZZ, 0BN93ZZ, 0BN94ZZ, 0BN97ZZ, 0BN98ZZ, 0BNB0ZZ, 0BNB3ZZ, 0BNB4ZZ, 0BNB7ZZ, 0BNB8ZZ, 0BNC0ZZ, 0BNC3ZZ, 0BNC4ZZ, 0BNC7ZZ, 0BNC8ZZ, 0BND0ZZ, 0BND3ZZ, 0BND4ZZ, 0BND7ZZ, 0BND8ZZ, 0BNF0ZZ, 0BNF3ZZ, 0BNF4ZZ, 0BNF7ZZ, 0BNF8ZZ, 0BNG0ZZ, 0BNG3ZZ, 0BNG4ZZ, 0BNG7ZZ, 0BNG8ZZ, 0BNH0ZZ, 0BNH3ZZ, 0BNH4ZZ, 0BNH7ZZ, 0BNH8ZZ, 0BNJ0ZZ, 0BNJ3ZZ, 0BNJ4ZZ, 0BNJ7ZZ, 0BNJ8ZZ, 0BNK0ZZ, 0BNK3ZZ, 0BNK4ZZ, 0BNK7ZZ, 0BNK8ZZ, 0BNL0ZZ, 0BNL3ZZ, 0BNL4ZZ, 0BNL7ZZ, 0BNL8ZZ, 0BNM0ZZ, 0BNM3ZZ, 0BNM4ZZ, 0BNM7ZZ, 0BNM8ZZ, 0BNT0ZZ, 0BNT3ZZ, 0BNT4ZZ, 0BP000Z, 0BP001Z, 0BP002Z, 0BP00CZ, 0BP00DZ, 0BP00JZ, 0BP00KZ, 0BP00YZ, 0BP030Z, 0BP031Z, 0BP032Z, 0BP03CZ, 0BP03DZ, 0BP03JZ, 0BP03KZ, 0BP040Z, 0BP041Z, 0BP042Z, 0BP04CZ, 0BP04DZ, 0BP04JZ, 0BP04KZ, 0BP071Z, 0BP081Z, 0BPK00Z, 0BPK01Z, 0BPK02Z, 0BPK03Z, 0BPK0YZ, 0BPK30Z, 0BPK31Z, 0BPK32Z, 0BPK33Z, 0BPK40Z, 0BPK41Z, 0BPK42Z, 0BPK43Z, 0BPK4YZ, 0BPK71Z, 0BPK81Z, 0BPL00Z, 0BPL01Z, 0BPL02Z, 0BPL03Z, 0BPL0YZ, 0BPL30Z, 0BPL31Z, 0BPL32Z, 0BPL33Z, 0BPL40Z, 0BPL41Z, 0BPL42Z, 0BPL43Z, 0BPL4YZ, 0BPL71Z, 0BPL81Z, 0BPT00Z, 0BPT02Z, 0BPT07Z, 0BPT0JZ, 0BPT0KZ, 0BPT0MZ, 0BPT0YZ, 0BPT30Z, 0BPT32Z, 0BPT37Z, 0BPT3JZ, 0BPT3KZ, 0BPT3MZ, 0BPT40Z, 0BPT42Z, 0BPT47Z, 0BPT4JZ, 0BPT4KZ, 0BPT4MZ, 0BPT4YZ, 0BPT77Z, 0BPT7JZ, 0BPT7KZ, 0BPT7MZ, 0BPT87Z, 0BPT8JZ, 0BPT8KZ, 0BPT8MZ, 0BQ10ZZ, 0BQ13ZZ, 0BQ14ZZ, 0BQ17ZZ, 0BQ18ZZ, 0BQ20ZZ, 0BQ23ZZ, 0BQ24ZZ, 0BQ27ZZ, 0BQ28ZZ, 0BQ30ZZ, 0BQ33ZZ, 0BQ34ZZ, 0BQ37ZZ, 0BQ38ZZ, 0BQ40ZZ, 0BQ43ZZ, 0BQ44ZZ, 0BQ47ZZ, 0BQ48ZZ, 0BQ50ZZ, 0BQ53ZZ, 0BQ54ZZ, 0BQ57ZZ, 0BQ58ZZ, 0BQ60ZZ, 0BQ63ZZ, 0BQ64ZZ, 0BQ67ZZ, 0BQ68ZZ, 0BQ70ZZ, 0BQ73ZZ, 0BQ74ZZ, 0BQ77ZZ, 0BQ78ZZ, 0BQ80ZZ, 0BQ83ZZ, 0BQ84ZZ, 0BQ87ZZ, 0BQ88ZZ, 0BQ90ZZ, 0BQ93ZZ, 0BQ94ZZ, 0BQ97ZZ,

**Pulmonology & Lung Surgery (cont.)**

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Major chest procedures (cont.)	163 (cont.)	0BQ98ZZ, 0BQB0ZZ, 0BQB3ZZ, 0BQB4ZZ, 0BQB7ZZ, 0BQB8ZZ, 0BQC0ZZ, 0BQC3ZZ, 0BQC4ZZ, 0BQC7ZZ, 0BQC8ZZ, 0BQD0ZZ, 0BQD3ZZ, 0BQD4ZZ, 0BQD7ZZ, 0BQD8ZZ, 0BQF0ZZ, 0BQF3ZZ, 0BQF4ZZ, 0BQF7ZZ, 0BQF8ZZ, 0BQG0ZZ, 0BQG3ZZ, 0BQG4ZZ, 0BQG7ZZ, 0BQG8ZZ, 0BQH0ZZ, 0BQH3ZZ, 0BQH4ZZ, 0BQH7ZZ, 0BQH8ZZ, 0BQJ0ZZ, 0BQJ3ZZ, 0BQJ4ZZ, 0BQJ7ZZ, 0BQJ8ZZ, 0BQK0ZZ, 0BQK3ZZ, 0BQK4ZZ, 0BQK7ZZ, 0BQK8ZZ, 0BQL0ZZ, 0BQL3ZZ, 0BQL4ZZ, 0BQL7ZZ, 0BQL8ZZ, 0BQM0ZZ, 0BQM3ZZ, 0BQM4ZZ, 0BQM7ZZ, 0BQM8ZZ, 0BQN0ZZ, 0BQN3ZZ, 0BQN4ZZ, 0BQP0ZZ, 0BQP3ZZ, 0BQP4ZZ, 0BQT0ZZ, 0BQT3ZZ, 0BQT4ZZ, 0BR107Z, 0BR10JZ, 0BR10KZ, 0BR147Z, 0BR14JZ, 0BR14KZ, 0BR207Z, 0BR20JZ, 0BR20KZ, 0BR247Z, 0BR24JZ, 0BR24KZ, 0BR307Z, 0BR30JZ, 0BR30KZ, 0BR347Z, 0BR34JZ, 0BR34KZ, 0BR407Z, 0BR40JZ, 0BR40KZ, 0BR447Z, 0BR44JZ, 0BR44KZ, 0BR507Z, 0BR50JZ, 0BR50KZ, 0BR547Z, 0BR54JZ, 0BR54KZ, 0BR607Z, 0BR60JZ, 0BR60KZ, 0BR647Z, 0BR64JZ, 0BR64KZ, 0BR707Z, 0BR70JZ, 0BR70KZ, 0BR747Z, 0BR74JZ, 0BR74KZ, 0BR807Z, 0BR80JZ, 0BR80KZ, 0BR847Z, 0BR84JZ, 0BR84KZ, 0BR907Z, 0BR90JZ, 0BR90KZ, 0BR947Z, 0BR94JZ, 0BR94KZ, 0BRB07Z, 0BRB0JZ, 0BRB0KZ, 0BRB47Z, 0BRB4JZ, 0BRB4KZ, 0BS10ZZ, 0BS20ZZ, 0BS30ZZ, 0BS40ZZ, 0BS50ZZ, 0BS60ZZ, 0BS70ZZ, 0BS80ZZ, 0BS90ZZ, 0BSB0ZZ, 0BSC0ZZ, 0BSD0ZZ, 0BSF0ZZ, 0BSG0ZZ, 0BSH0ZZ, 0BSJ0ZZ, 0BSK0ZZ, 0BSL0ZZ, 0BST0ZZ, 0BT10ZZ, 0BT14ZZ, 0BT20ZZ, 0BT24ZZ, 0BT30ZZ, 0BT34ZZ, 0BT40ZZ, 0BT44ZZ, 0BT50ZZ, 0BT54ZZ, 0BT60ZZ, 0BT64ZZ, 0BT70ZZ, 0BT74ZZ, 0BT80ZZ, 0BT84ZZ, 0BT90ZZ, 0BT94ZZ, 0BTB0ZZ, 0BTB4ZZ, 0BTC0ZZ, 0BTC4ZZ, 0BTD0ZZ, 0BTD4ZZ, 0BTF0ZZ, 0BTF4ZZ, 0BTG0ZZ, 0BTG4ZZ, 0BTH0ZZ, 0BTH4ZZ, 0BTJ0ZZ, 0BTJ4ZZ, 0BTK0ZZ, 0BTK4ZZ, 0BTL0ZZ, 0BTL4ZZ, 0BTM0ZZ, 0BTM4ZZ, 0BU107Z, 0BU10JZ, 0BU10KZ, 0BU147Z, 0BU14JZ, 0BU14KZ, 0BU187Z, 0BU18JZ, 0BU18KZ, 0BU207Z, 0BU20JZ, 0BU20KZ, 0BU247Z, 0BU24JZ, 0BU24KZ, 0BU287Z, 0BU28JZ, 0BU28KZ, 0BU307Z, 0BU30JZ, 0BU30KZ, 0BU347Z, 0BU34JZ, 0BU34KZ, 0BU387Z, 0BU38JZ, 0BU38KZ, 0BU407Z, 0BU40JZ, 0BU40KZ, 0BU447Z, 0BU44JZ, 0BU44KZ, 0BU487Z, 0BU48JZ, 0BU48KZ, 0BU507Z, 0BU50JZ, 0BU50KZ, 0BU547Z, 0BU54JZ, 0BU54KZ, 0BU587Z, 0BU58JZ, 0BU58KZ, 0BU607Z, 0BU60JZ, 0BU60KZ, 0BU647Z, 0BU64JZ, 0BU64KZ, 0BU687Z, 0BU68JZ, 0BU68KZ, 0BU707Z, 0BU70JZ, 0BU70KZ, 0BU747Z, 0BU74JZ, 0BU74KZ, 0BU787Z, 0BU78JZ, 0BU78KZ, 0BU807Z, 0BU80JZ, 0BU80KZ, 0BU847Z, 0BU84JZ, 0BU84KZ, 0BU887Z, 0BU88JZ, 0BU88KZ, 0BU907Z, 0BU90JZ, 0BU90KZ, 0BU947Z, 0BU94JZ, 0BU94KZ, 0BU987Z, 0BU98JZ, 0BU98KZ, 0BUB07Z, 0BUB0JZ, 0BUB0KZ, 0BUB47Z, 0BUB4JZ, 0BUB4KZ, 0BUB87Z, 0BUB8JZ, 0BUB8KZ, 0BV10CZ, 0BV10DZ, 0BV10ZZ, 0BV13CZ, 0BV13DZ, 0BV13ZZ, 0BV14CZ, 0BV14DZ, 0BV14ZZ, 0BV17DZ, 0BV17ZZ, 0BV18DZ, 0BV18ZZ, 0BV20CZ, 0BV20DZ, 0BV20ZZ, 0BV23CZ, 0BV23DZ, 0BV23ZZ, 0BV24CZ, 0BV24DZ, 0BV24ZZ, 0BV27DZ, 0BV27ZZ,



**Pulmonology & Lung Surgery (cont.)**

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Major chest procedures (cont.)	163 (cont.)	0BV28DZ, 0BV28ZZ, 0BV30CZ, 0BV30DZ, 0BV30ZZ, 0BV33CZ, 0BV33DZ, 0BV33ZZ, 0BV34CZ, 0BV34DZ, 0BV34ZZ, 0BV37DZ, 0BV37ZZ, 0BV38DZ, 0BV38ZZ, 0BV40CZ, 0BV40DZ, 0BV40ZZ, 0BV43CZ, 0BV43DZ, 0BV43ZZ, 0BV44CZ, 0BV44DZ, 0BV44ZZ, 0BV47DZ, 0BV47ZZ, 0BV48DZ, 0BV48ZZ, 0BV50CZ, 0BV50DZ, 0BV50ZZ, 0BV53CZ, 0BV53DZ, 0BV53ZZ, 0BV54CZ, 0BV54DZ, 0BV54ZZ, 0BV57DZ, 0BV57ZZ, 0BV58DZ, 0BV58ZZ, 0BV60CZ, 0BV60DZ, 0BV60ZZ, 0BV63CZ, 0BV63DZ, 0BV63ZZ, 0BV64CZ, 0BV64DZ, 0BV64ZZ, 0BV67DZ, 0BV67ZZ, 0BV68DZ, 0BV68ZZ, 0BV70CZ, 0BV70DZ, 0BV70ZZ, 0BV73CZ, 0BV73DZ, 0BV73ZZ, 0BV74CZ, 0BV74DZ, 0BV74ZZ, 0BV77DZ, 0BV77ZZ, 0BV78DZ, 0BV78ZZ, 0BV80CZ, 0BV80DZ, 0BV80ZZ, 0BV83CZ, 0BV83DZ, 0BV83ZZ, 0BV84CZ, 0BV84DZ, 0BV84ZZ, 0BV87DZ, 0BV87ZZ, 0BV88DZ, 0BV88ZZ, 0BV90CZ, 0BV90DZ, 0BV90ZZ, 0BV93CZ, 0BV93DZ, 0BV93ZZ, 0BV94CZ, 0BV94DZ, 0BV94ZZ, 0BV97DZ, 0BV97ZZ, 0BV98DZ, 0BV98ZZ, 0BVB0CZ, 0BVB0DZ, 0BVB0ZZ, 0BVB3CZ, 0BVB3DZ, 0BVB3ZZ, 0BVB4CZ, 0BVB4DZ, 0BVB4ZZ, 0BVB7DZ, 0BVB7ZZ, 0BVB8DZ, 0BVB8ZZ, 0BW00Z, 0BW00ZZ, 0BW00CZ, 0BW00DZ, 0BW00JZ, 0BW00KZ, 0BW00YZ, 0BW03Z, 0BW03ZZ, 0BW03CZ, 0BW03DZ, 0BW03JZ, 0BW03KZ, 0BW04Z, 0BW04ZZ, 0BW04CZ, 0BW04DZ, 0BW04JZ, 0BW04KZ, 0BW07Z, 0BW08Z, 0BWK0Z, 0BWK0ZZ, 0BWK03Z, 0BWK0YZ, 0BWK3Z, 0BWK3ZZ, 0BWK33Z, 0BWK4Z, 0BWK4ZZ, 0BWK43Z, 0BWK4YZ, 0BWK8YZ, 0BWL0Z, 0BWL0ZZ, 0BWL03Z, 0BWL0YZ, 0BWL3Z, 0BWL3ZZ, 0BWL33Z, 0BWL4Z, 0BWL4ZZ, 0BWL43Z, 0BWL4YZ, 0BWL8YZ, 0BWT0Z, 0BWT0ZZ, 0BWT07Z, 0BWT0JZ, 0BWT0KZ, 0BWT0MZ, 0BWT0YZ, 0BWT3Z, 0BWT3ZZ, 0BWT37Z, 0BWT3JZ, 0BWT3KZ, 0BWT3MZ, 0BWT4Z, 0BWT4ZZ, 0BWT47Z, 0BWT4JZ, 0BWT4KZ, 0BWT4MZ, 0BWT4YZ, 0BWT7Z, 0BWT7ZZ, 0BWT77Z, 0BWT7JZ, 0BWT7KZ, 0BWT7MZ, 0BWT8Z, 0BWT8ZZ, 0BWT87Z, 0BWT8JZ, 0BWT8KZ, 0BWT8MZ, 0DQ50ZZ, 0DQ53ZZ, 0DQ54ZZ, 0DQ57ZZ, 0DQ58ZZ, 0WJ90ZZ, 0WJB0ZZ, 0WJC0ZZ, 0WJQ0ZZ, 0WU807Z, 0WU80JZ, 0WU80KZ, 0WU847Z, 0WU84JZ, 0WU84KZ
		164	See MS-DRG 163
		165	See MS-DRG 163
S	Other resp system O.R. procedures	166	Include all
		167	Include all
		168	Include all
M	Pulmonary embolism	175	Include all
		176	Include all
M	Respiratory infections & inflammations	177	Exclude diagnoses: R76.11, R76.12
		178	See MS-DRG 177
		179	See MS-DRG 177

### Pulmonology & Lung Surgery (cont.)

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
M	Respiratory neoplasms	180	Exclude diagnoses: D14.2, D14.30, D14.31, D14.32, D14.4, D15.2, D15.7, D15.9, D16.7, D19.0, D3A.090
		181	See MS-DRG 180
		182	See MS-DRG 180
M	Major chest trauma	183	Include all
		184	Include all
		185	Include all
M	Pleural effusion	186	Include all
M	Pulmonary edema & respiratory failure	187	Include all
M	Chronic obstructive pulmonary disease	189	Include all
		190	Include all
		191	Include all
M	Simple pneumonia & pleurisy	192	Include all
		193	Include all
		194	Include all
M	Interstitial lung disease	196	Include all
		197	Include all
		198	Include all
M	Pneumothorax	199	Exclude diagnoses: J95.811
		200	See MS-DRG 199
M	Bronchitis & asthma	202	Include all
M	Respiratory system diagnosis w ventilator support	207	Include all
		208	Include all
M	Septicemia or severe sepsis w MV 96+ hours	870	Include all
		871	Include all
		872	Include all

### Urology\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Major bladder procedures	653	Include all
		654	Include all
		655	Include all
S	Kidney & ureter procedures for neoplasm	656	Include procedures: 0T1307B, 0T130JB, 0T130KB, 0T130ZB, 0T1347B, 0T134JB, 0T134KB, 0T134ZB, 0T1407B, 0T140JB, 0T140KB, 0T140ZB, 0T1447B, 0T144JB, 0T144KB, 0T144ZB, 0T16076, 0T16077, 0T16078, 0T16079, 0T1607A, 0T1607B, 0T1607C, 0T1607D, 0T160J6, 0T160J7, 0T160J8, 0T160J9, 0T160JA, 0T160JB, 0T160JC, 0T160JD, 0T160K6, 0T160K7, 0T160K8, 0T160K9, 0T160KA, 0T160KB, 0T160KC, 0T160KD, 0T160Z6, 0T160Z7, 0T160Z8, 0T160Z9, 0T160ZA, 0T160ZB, 0T160ZC, 0T160ZD, 0T163JD, 0T16476, 0T16477, 0T16478, 0T16479, 0T1647A, 0T1647B, 0T1647C, 0T1647D, 0T164J6, 0T164J7, 0T164J8, 0T164J9, 0T164JA, 0T164JB, 0T164JC, 0T164JD, 0T164K6, 0T164K7, 0T164K8, 0T164K9, 0T164KA, 0T164KB, 0T164KC, 0T164KD, 0T164Z6, 0T164Z7, 0T164Z8,

\*Exclude principal diagnosis: T8351 (catheter-associated urinary tract infections)

**Urology (cont.)\***

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
S	Kidney & ureter procedures for neoplasm (cont.)	656 (cont.)	OT164Z9, OT164ZA, OT164ZB, OT164ZC, OT164ZD, OT17076, OT17077, OT17078, OT17079, OT1707A, OT1707B, OT1707C, OT1707D, OT170J6, OT170J7, OT170J8, OT170J9, OT170JA, OT170JB, OT170JC, OT170JD, OT170K6, OT170K7, OT170K8, OT170K9, OT170KA, OT170KB, OT170KC, OT170KD, OT170Z6, OT170Z7, OT170Z8, OT170Z9, OT170ZA, OT170ZB, OT170ZC, OT170ZD, OT173JD, OT17476, OT17477, OT17478, OT17479, OT1747A, OT1747B, OT1747C, OT1747D, OT174J6, OT174J7, OT174J8, OT174J9, OT174JA, OT174JB, OT174JC, OT174JD, OT174K6, OT174K7, OT174K8, OT174K9, OT174KA, OT174KB, OT174KC, OT174KD, OT174Z6, OT174Z7, OT174Z8, OT174Z9, OT174ZA, OT174ZB, OT174ZC, OT174ZD, OT18076, OT18077, OT18078, OT18079, OT1807A, OT1807B, OT1807C, OT1807D, OT180J6, OT180J7, OT180J8, OT180J9, OT180JA, OT180JB, OT180JC, OT180JD, OT180K6, OT180K7, OT180K8, OT180K9, OT180KA, OT180KB, OT180KC, OT180KD, OT180Z6, OT180Z7, OT180Z8, OT180Z9, OT180ZA, OT180ZB, OT180ZC, OT180ZD, OT183JD, OT18476, OT18477, OT18478, OT18479, OT1847A, OT1847B, OT1847C, OT1847D, OT184J6, OT184J7, OT184J8, OT184J9, OT184JA, OT184JB, OT184JC, OT184JD, OT184K6, OT184K7, OT184K8, OT184K9, OT184KA, OT184KB, OT184KC, OT184KD, OT184Z6, OT184Z7, OT184Z8, OT184Z9, OT184ZA, OT184ZB, OT184ZC, OT184ZD, OT560ZZ, OT563ZZ, OT564ZZ, OT567ZZ, OT568ZZ, OT570ZZ, OT573ZZ, OT574ZZ, OT577ZZ, OT578ZZ, OT760ZZ, OT763ZZ, OT764ZZ, OT768ZZ, OT770ZZ, OT773ZZ, OT774ZZ, OT778ZZ, OT780ZZ, OT783ZZ, OT784ZZ, OT9000Z, OT900ZZ, OT9040Z, OT9100Z, OT910ZZ, OT9140Z, OT9300Z, OT930ZZ, OT9340Z, OT9400Z, OT940ZZ, OT9440Z, OT960ZX, OT960ZZ, OT964ZZ, OT967ZZ, OT968ZZ, OT970ZX, OT970ZZ, OT974ZZ, OT977ZZ, OT978ZZ, OT980ZX, OT980ZZ, OT984ZZ, OT987ZZ, OT988ZZ, OTB60ZX, OTB60ZZ, OTB63ZZ, OTB64ZZ, OTB67ZZ, OTB68ZZ, OTB70ZX, OTB70ZZ, OTB73ZZ, OTB74ZZ, OTB77ZZ, OTB78ZZ, OTC60ZZ, OTC63ZZ, OTC64ZZ, OTC70ZZ, OTC73ZZ, OTC74ZZ, OTH90ZZ, OTH90MZ, OTH90YZ, OTH93ZZ, OTH93MZ, OTH94ZZ, OTH94MZ, OTH97MZ, OTH98MZ, OTH98YZ, OTJ50ZZ, OTJ90ZZ, OTL60CZ, OTL60DZ, OTL60ZZ, OTL63CZ, OTL63DZ, OTL63ZZ, OTL64CZ, OTL64DZ, OTL64ZZ, OTL67DZ, OTL67ZZ, OTL68DZ, OTL68ZZ, OTL70CZ, OTL70DZ, OTL70ZZ, OTL73CZ, OTL73DZ, OTL73ZZ, OTL74CZ, OTL74DZ, OTL74ZZ, OTL77DZ, OTL77ZZ, OTL78DZ, OTL78ZZ, OTM60ZZ, OTM64ZZ, OTM70ZZ, OTM74ZZ, OTM80ZZ, OTM84ZZ, OTN00ZZ, OTN03ZZ, OTN04ZZ, OTN07ZZ, OTN08ZZ, OTN10ZZ, OTN13ZZ, OTN14ZZ, OTN17ZZ, OTN18ZZ, OTN30ZZ, OTN33ZZ, OTN34ZZ, OTN37ZZ, OTN38ZZ, OTN40ZZ, OTN43ZZ, OTN44ZZ, OTN47ZZ, OTN48ZZ, OTN60ZZ, OTN63ZZ, OTN64ZZ, OTN67ZZ, OTN68ZZ, OTN70ZZ, OTN73ZZ, OTN74ZZ, OTN77ZZ, OTN78ZZ, OTP900Z, OTP902Z, OTP903Z, OTP907Z, OTP90CZ, OTP90DZ, OTP90JZ, OTP90KZ, OTP90MZ, OTP90YZ, OTP930Z, OTP932Z, OTP933Z, OTP937Z, OTP93CZ, OTP93DZ, OTP93JZ, OTP93KZ, OTP93MZ, OTP940Z, OTP942Z, OTP943Z, OTP947Z, OTP94CZ, OTP94DZ, OTP94JZ, OTP94KZ,

\*Exclude principal diagnosis: T8351 (catheter-associated urinary tract infections)

### Urology (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10	
S	Kidney & ureter procedures for neoplasm (cont.)	656 (cont.)	0TP94MZ, 0TP977Z, 0TP97CZ, 0TP97JZ, 0TP97KZ, 0TP97MZ, 0TP987Z, 0TP98CZ, 0TP98JZ, 0TP98KZ, 0TP98MZ, 0TP9XMZ, 0TQ60ZZ, 0TQ63ZZ, 0TQ64ZZ, 0TQ67ZZ, 0TQ68ZZ, 0TQ70ZZ, 0TQ73ZZ, 0TQ74ZZ, 0TQ77ZZ, 0TQ78ZZ, 0TR607Z, 0TR60JZ, 0TR60KZ, 0TR647Z, 0TR64JZ, 0TR64KZ, 0TR677Z, 0TR67JZ, 0TR67KZ, 0TR687Z, 0TR68JZ, 0TR68KZ, 0TR707Z, 0TR70JZ, 0TR70KZ, 0TR747Z, 0TR74JZ, 0TR74KZ, 0TR777Z, 0TR77JZ, 0TR77KZ, 0TR787Z, 0TR78JZ, 0TR78KZ, 0TS60ZZ, 0TS64ZZ, 0TS70ZZ, 0TS74ZZ, 0TS80ZZ, 0TS84ZZ, 0TT60ZZ, 0TT64ZZ, 0TT67ZZ, 0TT68ZZ, 0TT70ZZ, 0TT74ZZ, 0TT77ZZ, 0TT78ZZ, 0TU607Z, 0TU60JZ, 0TU60KZ, 0TU647Z, 0TU64JZ, 0TU64KZ, 0TU677Z, 0TU67JZ, 0TU67KZ, 0TU687Z, 0TU68JZ, 0TU68KZ, 0TU707Z, 0TU70JZ, 0TU70KZ, 0TU747Z, 0TU74JZ, 0TU74KZ, 0TU777Z, 0TU77JZ, 0TU77KZ, 0TU787Z, 0TU78JZ, 0TU78KZ, 0TV60CZ, 0TV60DZ, 0TV60ZZ, 0TV63CZ, 0TV63DZ, 0TV63ZZ, 0TV64CZ, 0TV64DZ, 0TV64ZZ, 0TV67DZ, 0TV67ZZ, 0TV68DZ, 0TV68ZZ, 0TV70CZ, 0TV70DZ, 0TV70ZZ, 0TV73CZ, 0TV73DZ, 0TV73ZZ, 0TV74CZ, 0TV74DZ, 0TV74ZZ, 0TV77DZ, 0TV77ZZ, 0TV78DZ, 0TV78ZZ, 0TW900Z, 0TW902Z, 0TW903Z, 0TW907Z, 0TW90CZ, 0TW90DZ, 0TW90JZ, 0TW90KZ, 0TW90MZ, 0TW90YZ, 0TW930Z, 0TW932Z, 0TW933Z, 0TW937Z, 0TW93CZ, 0TW93DZ, 0TW93JZ, 0TW93KZ, 0TW93MZ, 0TW940Z, 0TW942Z, 0TW943Z, 0TW947Z, 0TW94CZ, 0TW94DZ, 0TW94JZ, 0TW94KZ, 0TW94MZ, 0TW970Z, 0TW972Z, 0TW973Z, 0TW977Z, 0TW97CZ, 0TW97DZ, 0TW97JZ, 0TW97KZ, 0TW97MZ, 0TW980Z, 0TW982Z, 0TW983Z, 0TW987Z, 0TW98CZ, 0TW98DZ, 0TW98JZ, 0TW98KZ, 0TW98MZ, 0TW98YZ, 0WBH0ZZ, 0WBH3ZZ, 0WBH4ZZ, 0WQF0ZZ, 0WQF3ZZ, 0WQF4ZZ	
			657	See MS-DRG 656
			658	See MS-DRG 656
S	Kidney & ureter procedures for non-neoplasm	659	See MS-DRG 656	
		660	See MS-DRG 656	
		661	See MS-DRG 656	
S	Minor bladder procedures	662	Include all	
		663	Include all	
		664	Include all	
S	Prostatectomy	665	Include all	
		666	Include all	
S	Transurethral procedures	668	Include all	
		669	Include all	
S	Urethral procedures w CC/MCC	671	Include all	
S	Other kidney & urinary tract procedures	673	Include procedures: 0VPS0JZ, 0VPS3JZ, 0VPS4JZ, 0VPS7JZ, 0VPS8JZ, 0VUS0JZ, 0VUS4JZ	
		674	See MS-DRG 673	
		675	See MS-DRG 673	

\*Exclude principal diagnosis: T8351 (catheter-associated urinary tract infections)

### Urology (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
M	Kidney & urinary tract neoplasms	686	Exclude diagnoses: C64.1, C64.2, C64.9, C65.1, C65.2, C65.9, C79.00, C79.01, C79.02, C7A.093, D30.00, D30.01, D30.02, D30.10, D30.11, D30.12, D3A.093
		687	See MS-DRG 686
		688	See MS-DRG 686
M	Urinary stones w esw lithotripsy	691	Include all
		692	Include all
M	Urethral stricture	697	Include all
M	Other kidney & urinary tract diagnoses	698	Exclude diagnoses: E08.21, E08.22, E08.29, E09.21, E09.22, E09.29, E10.21, E10.22, E10.29, E11.21, E11.22, E11.29, E13.21, E13.22, E13.29, I70.1, I72.2, I75.81, I77.73, I82.3, M10.30, M10.311, M10.312, M10.319, M10.321, M10.322, M10.329, M10.331, M10.332, M10.339, M10.341, M10.342, M10.349, M10.351, M10.352, M10.359, M10.361, M10.362, M10.369, M10.371, M10.372, M10.379, M10.38, M10.39, N00.0, N00.1, N00.2, N00.3, N00.4, N00.5, N00.6, N00.7, N00.8, N00.9, N01.0, N01.1, N01.2, N01.3, N01.4, N01.5, N01.6, N01.7, N01.8, N01.9, N02.0, N02.1, N02.2, N02.3, N02.4, N02.5, N02.6, N02.7, N02.8, N02.9, N03.0, N03.1, N03.2, N03.3, N03.4, N03.5, N03.6, N03.7, N03.8, N03.9, N04.0, N04.1, N04.2, N04.3, N04.4, N04.5, N04.6, N04.7, N04.8, N04.9, N05.0, N05.1, N05.2, N05.3, N05.4, N05.5, N05.6, N05.7, N05.8, N05.9, N06.0, N06.1, N06.2, N06.3, N06.4, N06.5, N06.6, N06.7, N06.8, N06.9, N07.0, N07.1, N07.2, N07.3, N07.4, N07.5, N07.6, N07.7, N07.8, N07.9, N08, N14.0, N14.1, N14.2, N14.3, N14.4, N15.0, N15.8, N15.9, N16, N25.0, N25.1, N25.81, N25.89, N25.9, N26.1, N26.9, N27.0, N27.1, N27.9, N28.0, N28.1, N28.81, N28.83, N28.9, N29, R80.2, S37.001A, S37.002A, S37.009A, S37.011A, S37.012A, S37.019A, S37.021A, S37.022A, S37.029A, S37.031A, S37.032A, S37.039A, S37.041A, S37.042A, S37.049A, S37.051A, S37.052A, S37.059A, S37.061A, S37.062A, S37.069A, S37.091A, S37.092A, S37.099A, Z52.4, Z94.0
		699	See MS-DRG 698
		700	See MS-DRG 698
		S	Major male pelvic procedures
708	Include all		
S	Penis procedures	709	Include all
		710	Include all
S	Testes procedures	711	Include all
		712	Include all
S	Transurethral prostatectomy w CC/MCC	713	Include all
S	Other male reproductive system O.R. proc for malignancy	715	Include all
		716	Include all
S	Other male reproductive system O.R. proc exc malignancy	717	Include all
		718	Include all
M	Malignancy, male reproductive system	722	Include all
		723	Include all
		724	Include all

\*Exclude principal diagnosis: T8351 (catheter-associated urinary tract infections)

### Urology (cont.)\*

Medical/ Surgical	DRG Title	MS- DRG	ICD-10
M	Inflammation of the male reproductive system	727	Include all
		728	Include all
M	Other male reproductive system diagnoses	729	Exclude diagnoses: Z30.2
		730	See MS-DRG 729
S	Prostatic O.R. procedure unrelated to principal diagnosis	984	Include all
		985	Include all
		986	Include all

\*Exclude principal diagnosis: T8351 (catheter-associated urinary tract infections)

## **Appendix C**

### **Year-by Year History of Methodology Changes**

RTI began working with *U.S. News* on the Best Hospitals rankings in 2005. This section details the changes to the previous Best Hospitals methodology used between 2005-2022. These brief descriptions are provided for context to allow consumers of the rankings to review year-over-year changes implemented to the rankings.

## Summary of 2022-2023 Changes

- **Adjustments related to the COVID-19 pandemic:** We excluded visits in which a patient had a diagnosis of COVID-19. For each hospital's outcome measures, we also excluded visits from March 2020 and for other months in 2020 in which the hospital's COVID-19 rate exceeded the national average or exceeded 15%, whichever was less. In addition, for hospitals with higher volume in 2017-2019 than in 2018-2020, we calculated volume measures using observed volumes from 2017-2019.
- **Removal of CLABSI and/or CAUTI cases in three specialties:** In Cardiology and Heart Surgery, any case with primary diagnosis of CLABSI (central-line-associated bloodstream infections) was removed from analysis. In Geriatrics, any case with a primary diagnosis of CLABSI or CAUTI (catheter-associated urinary tract infections) was removed from analysis. In Urology, any case with a primary diagnosis of CAUTI was removed from analysis.
- **Updated Obstetrics & Gynecology specialty:** The name of the specialty was changed to Obstetrics & Gynecology in recognition of changes to the specialty. This specialty now includes a new transparency indicator that is based on participation by hospitals in public reporting on the U.S. News Maternity Services Survey. Hospitals that participated in this public reporting received credit for the transparency indicator which is now worth 3% of their total U.S. News Score for this ranking.
- **Update to Cardiology and Heart Surgery specialty:** This specialty replaced the structural eligibility requirements from the AHA annual survey with a new indicator that the hospital offered cardiac surgical services from the U.S. News Procedures & Conditions ratings. Hospitals that qualified for any rating in AVR and CABG in 2021-2022 were eligible for this specialty if they met the volume and expert opinion requirements listed earlier in this report. Also, the Patient Services measure was updated to include a measure of whether the hospital offered a cardiac intensive care unit (CICU) as part of the services available to patients.
- **Update to Honor Roll & Best Regional Hospitals:** Three new cohorts were added to the Honor Roll and Best Regional Hospitals in 2022-2023. These include ovarian, uterine, and prostate cancer surgery. The ovarian and uterine cancer surgery cohorts were combined for these lists and considered together in the same way that AVR and TAVR are considered as a single group. This effectively increases the number of possible points for hospitals by two cohorts. See the detailed description in the preceding section.



## Summary of 2021-2022 Changes

- **Introduction of a new data-driven inpatient Rehabilitation ranking.** The previous rehabilitation ranking has been expanded to include additional process, outcome, and structural measures introducing a new version of the ranking for 2021-2022 that makes use of a data-driven methodology. As additional measures of rehabilitation care become available for use, the project will continue to expand the set of measures used to evaluate hospitals in this area.
- **Refined the Discharge to Home measure.** For the "discharge to home" outcome measure, two small changes were made to the analyses this year to refine the focus on only relevant cases. First, we removed all admissions from skilled nursing facilities (SNF, clm\_src\_ip\_admsn\_cd=5) from the denominator. Second, we removed all discharges to home hospice (ptnt\_dschr\_g\_stus\_cd=50) from the denominator.
- **Nurse staffing adjustments.** Beginning with the 2021-2022 rankings, nurse staffing is averaged over three years to reduce the impact of year-to-year variation in reporting. For example, the 2021-2022 rankings created an average of the nurse staffing index values as calculated from the 2017, 2018, and 2019 AHA databases.

## Summary of 2020-2021 Changes

- **Updates to the Risk Adjustment of the Mortality and Discharge to Home Scores.** For the 2020-2021 rankings, all covariates were the same as was used in the 2019-2020 rankings with the exception of the removal of the ICD version. All years of data incorporated in the 2020-2021 rankings used ICD-10 codes, so this covariate was no longer needed in the model.
- **Move to Calendar Year for Medicare Data.** For all Medicare data used in the project, we switched from fiscal to calendar year. We made this change for two reasons. First, to harmonize the specialty hospital rankings with the Procedures & Conditions ratings, where calendar year data has been used for a number of years. Second, calendar year data is three months more recent than the corresponding fiscal year data, so this change ensured that more up-to-date data were used for the rankings.
- **Accounting for Medicare Advantage in Volume Measures.** To measure hospital volume in each specialty, we used volume counts from the MedPAR datasets, which includes patients who have Medicare Advantage insurance, to adjust volumes to account for Medicare cases missing from the SAF datasets. For hospitals that treat Medicare Advantage patients, using this adjustment produced a more precise measure of volume and removed the need to use county-level Medicare Advantage penetration rate, as we have done in the past, to adjust Medicare fee-for-service volume. In a small number of cases, MedPAR data was not available, so the county-level Medicare Advantage penetration rate was used to estimate the adjustment to the volume.

- **Discharge to Home Update.** For the "discharge to home" outcome measure, patients who received nonsurgical care and were discharged to home hospice (discharge status code 50) are now treated as having been discharged to home. We changed our approach due to feedback we received stating that for patients who are dying (such as patients with advanced cancer), being discharged to home hospice is often the best patient-centered outcome. Additionally, all patients who were discharged home with planned readmission (discharge status codes 81 or 86) are now treated as having been discharged to home. Patients with any of several rare codes indicating the involvement of a court or law enforcement agency were excluded from the measure.
- **Stroke Registry Transparency Measure.** A new measure of public transparency was added in Neurology & Neurosurgery. The hospitals that opted-in by the December 2019 deadline to publicly report performance measures from the American Heart Association's Get With The Guidelines-Stroke program received credit if evaluated in this specialty. The weight assigned to this transparency measure was 2 percent, and the weight assigned to Expert Opinion in this specialty was reduced by the same amount.

## Summary of 2019-2020 Changes

- **Update of the Mortality Measure and Survival Score.** Starting with 2019-2020, the rankings moved to a new mortality measure as the basis of the survival score. The new measure utilizes risk-adjustment methodologies developed in the Best Hospitals for Procedures & Conditions project to evaluate one of the most important outcomes of care—whether patients live or die as a result of inpatient hospitalization. The new methodology utilizes multilevel logistic regression models to adjust for differences in case mix between hospitals. The model calculates RE (random effect) scores which can be thought of as a hospital level off-set. They represent the risk difference between a hospital and all hospitals in a given specialty, discounted by the reliability of that difference (based on the volume of cases). The models make use of a variety of covariates such as patient age, gender, Medicare status, the year of the visit, Elixhauser comorbidities, dual eligibility for Medicare and Medicaid (a proxy measure of socio-economic status), the DRG group of the claim, and an indicator of whether the claim was coded in ICD-9 or ICD-10 to account for differences in coding practices.
- **Addition of the Discharge to Home Score.** A new outcome for 2019-2020 rankings is the discharge to home score, which assesses how well a hospital does at managing to discharge patients to home rather than sending them on to another acute, post-acute, or long-term care setting following hospitalization. This measure provides unique information about hospital outcome performance that has been available in the Best Hospitals for Procedures & Conditions ratings for a number of years but is new to the Best Hospitals Specialty Rankings.
- **Removal of the Patient Safety Score.** Since 2009, the Best Hospitals Specialty Rankings have included a patient safety score, which were constructed from a

selection of Patient Safety Indicators (PSIs). The PSIs that constituted the patient safety score have evolved over time as our understanding of the validity and reliability of individual PSIs has changed. For 2019-2020, we removed the patient safety score from the methodology. While the construct of patient safety remains important, we concluded that these specific measures are not ideal for comparing hospital performance.

- **Addition of Patient Experience Score.** In response to feedback from patients, hospital leaders and other stakeholders about the importance of the patient experience when considering healthcare quality, we introduced the patient experience score. This score is based on the linear mean score data from the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) patient satisfaction survey.
- **Removal of DRG 470 from orthopedics.** This DRG, which includes hip and knee replacement, was removed from the Best Hospitals rankings because it overlaps with cases included in the Best Hospitals for Procedures & Conditions ratings. These low-risk procedures generally do not require complex specialty care, and some health systems are increasingly treating these cases in settings different from those where complex orthopedic care is delivered.

## Summary of 2018-2019 Changes

- **Removal of the transfer adjustment for mortality.** Since 2010, the rankings have adjusted mortality ratios for the influence of particularly high or low transfer rates to control for potential bias in the evaluation of hospital outcomes. This was done to address issues with coding of transfers in the datasets used which had been shown to be problematic at times. With the move to the SAF data, the project is now able to use both identified transfers on the record along with calculated implicit transfers which effectively overcomes the previous issues, removing the need for the adjustment.
- **Backwards mapping of ICD-10 to ICD-9.** Since two of the three years of SAF data used in the rankings for 2018-19 appear in ICD-9 format, the project chose to recode the ICD-10 data from FY2016 into ICD-9 format for the volume and mortality analyses. Due to the increased granularity of the ICD-10 codes, it is possible to backwards map ICD-10 codes to ICD-9 codes. The project team utilized the IBM Watson Health mapping of ICD-10 to ICD-9 codes to recode data, so that the same DRGs could be used for all three years. The project anticipates using the same approach for the 2019-2020 rankings before moving completely to ICD-10 in 2020. (See page 26-27.)
- **Updated Survival Score calculation.** To improve the clarity of the survival scores used in the data-driven specialties, the project team updated the method of calculating these display-only scores (this change does not affect points assigned in the rankings). The scores are now calculated based on the adjusted mortality ratio (rather than the unadjusted ratio) and are based on quintiles above and below a

mortality ratio of 1.0; ratios above 1.0 will receive a score of 1-5, while those below a ratio of 1.0 will receive a score of 6-10. (See pages 31-32.)

## Summary of 2017-2018 Changes

- **Move to SAF data.** The project implemented a change from the MedPAR to the SAF inpatient limited datasets for all volume, mortality, and patient safety calculations; the exception is that the HSCRC all-payer database continued to be used for the Patient Safety Score calculations for hospitals located in Maryland. Only patients receiving care under traditional Medicare (fee-for-service) are included in the SAF data used for analyses; as a result, all hospital volumes will be reduced due to the lack of CMS managed care patients in the SAF data.
- **Volume adjustment for loss of Medicare Advantage.** Volumes were estimated for hospitals in each specialty using an adjustment to account for the loss of Medicare Advantage patients from the analyses. The numerator for the volume calculation was the number of fee-for-service discharges meeting the criteria for inclusion in the specialty. The denominator was the proportion of Medicare beneficiaries enrolled in fee-for-service (as opposed to Medicare Advantage) in the county in which the hospital is located. The denominator was calculated by subtracting from 1.0 the CMS Medicare Advantage penetration estimates, expressed as a decimal less than 1.0, for June 2013. As a result, the volumes reported represent estimates rather than observed volumes of care at each hospital.
- **Socioeconomic status (SES) adjustment to the survival score.** The rankings now incorporate a new adjustment at the patient level for dual-eligibility for Medicare and Medicaid. The dual eligible flag is set to either 0 (not present) or 1 (present) for each case entering the risk-adjusted mortality equation. This was done to address known differences in morbidity and mortality with hospital patients associated with lower SES; dual-eligibility, or more specifically eligibility for Medicaid, is being used in this case to represent lower SES. The overall impact of the change is very small, but will result in scores that better represent patient survival in hospitals evaluated.
- **Intensivists.** Hospitals now receive 1 point for having at least one intensivist FTE reported as being available in any adult-focused intensive care unit within the hospital. This change now provides somewhat broader credit to hospitals for having intensivists available than in previous years.
- **Nurse Magnet.** The Nurse Magnet measure was updated to better reflect program coverage for hospitals that are part of a multi-campus system or an arrangement with another hospital outside the system. Hospitals received 1 point for being recognized as a Nurse Magnet hospital. For hospitals that are part of a special merger or a multiplex healthcare system, the primary hospital is required to have Magnet Recognition status for the combination hospital to receive 1 point. If there is no defined primary hospital, then if either hospital in the special merger has Magnet Recognition status then both receive credit. Partial credit was not offered in the 2017-2018 rankings.

- Patient safety score.** Two of the PSIs used in the patient safety score—PSI 06 (Iatrogenic Pneumothorax) and PSI 14 (Postoperative Wound Dehiscence)—were dropped due to concerns that low base rates could lead to unreliable measurement. The scoring for the remaining individual PSIs was also revised to a three-point scale with the middle category defined as the mean +/- 2 standard deviations. The individual PSI scores were combined to form a 1-9-point Patient Safety Score with higher numbers indicating better performance (i.e., lower rates of patient safety events).
- Nurse staffing score adjustments.** The project implemented three changes to the nurse staffing score for the 2017-18 rankings. First, the calculation now includes a correction for hospitals that provide onsite skilled nursing and report their nursing inclusive of both the inpatient and skilled nursing. The nursing FTEs associated with the skilled nursing are removed from the numerator and a corrected adjusted average daily census is used for the denominator. The corrected adjusted average daily census values for hospitals affected by this change are calculated and provided directly to the project by the AHA. Second, to address problems with missing data—in particular the primary nursing FTEs variable (FTEN)—the rankings impute missing FTEN values. For the imputation, hospitals that do not have extreme nurse staffing ratios are selected and the calculation incorporates data from current values for FTEN (Full time equivalent registered nurses reported), FTERN (Full time equivalent registered nurses estimated), ADJADC (Adjusted Average Daily Census) and BDTOT (total hospital beds set up and staffed). Third, to address volatility in the nurse staffing measure for hospitals with relatively low numbers of patients, we adjust the nurse staffing values for hospitals in the lowest quartile of adjusted average daily census by blending their rate with that of the average adjusted nurse staffing rate for hospitals eligible for the rankings.
- Surgical Minimums for Eligibility in Neurology and Neurosurgery.** To be eligible for evaluation in the neurology and neurosurgery specialty hospitals are now required to be at the 25<sup>th</sup> percentile or higher in terms of the ratio of surgical to total discharges within the DRGs evaluated for the specialty. This change was made to address excessive bias in mortality rates for hospitals with a very low ratio of surgical-to-total discharges.

## Summary of 2016-2017 Changes

- MedPAR data.** Only patients receiving care under Medicare (fee-for-service and, if available, managed-care) and who were 65 years of age or older were included in the MedPAR file used for analyses. In previous years, all ages were used which resulted in somewhat inflated volume rates.
- Component weight.** The overall weight for the patient safety index was lowered from 10% in 2015-16 to 5% in 2016-17. The overall weight for outcomes was correspondingly increased from 32.5% last year to 37.5%.

- **Intensivists.** Hospitals now receive 1 point for having at least one intensivist whether on staff or through another privileged arrangement. Previously, intensivists were required to be on staff.
- **Nurse Magnet.** The Nurse Magnet measure was updated to better reflect program coverage for hospitals that are part of a multicampus system or an arrangement with another hospital outside the system. These combined entities only received full credit in 2016-17 (1 point) if all hospitals in the combination had Nurse Magnet recognition as of April 1, 2016. If the primary hospital had Nurse Magnet recognition but the specialty or secondary hospital(s) did not, the combined entity received half credit (0.5 point).
- **Public transparency.** In Cardiology & Heart Surgery only, a new measure was added rewarding hospitals for participation in transparency in public reporting of heart outcomes with the ACC and STS.
- **Use of SAF data for patient safety.** In previous years, the data source for the patient safety score was the same 3-year sample from the MedPAR dataset that was used for the volume and mortality analyses. For 2016-17, the rankings used data from the CMS SAF data instead of MedPAR. This change was motivated by the need to have more accurate procedure data for a number of the PSI calculations.
- **Patient safety score.** PSI 03, decubitus ulcer, was dropped due to concerns that the measure was overly sensitive to missing POA data in the record, which could confound comparisons.
- **Data for Maryland hospitals.** For Maryland hospitals, data from the state's HSCRC all-payer database were used for patient safety. This change was made to address incomplete coding of POA indicators in the CMS datasets for some of the years of analyses under consideration for the rankings.
- **Honor Roll.** Moved to a new format that incorporated results from the 12 data-driven specialty rankings, the 4 expert opinion-based specialty rankings, and the 9 procedures and conditions ratings. Hospitals received points for being ranked in each of the Best Hospitals data-driven and expert opinion only specialties if they appeared in the top 50, and additional points if they achieved a rating of high performing in the procedures and conditions ratings. The Honor Roll now recognizes the 20 hospitals that earned the most points out of the possible total.

## Summary of 2015-2016 Changes

- **Technology and Patient Services.** Due to changes to the AHA annual survey, there are now three categories instead of four categories for receiving credit for providing technology and patient services to patients. These services can be provided (1) by the hospital or its subsidiaries, (2) by the hospital's health system (in local network), or (3) by another institution outside of the health system, but in the local network, through a formal contractual arrangement or joint venture.

- **Patient Safety Score.** PSI08 was removed from the patient safety score due to low prevalence. A risk-adjusted rather than a smoothed rate is used, to address concerns that the smoothed rate might over-adjust for differences between hospitals.

## Summary of 2014-2015 Changes

- **Component weighting.** The weight for the process component was reduced from 32.5% to 27.5% and the weight for the patient safety score was increased from 5% to 10%. This was done in recognition of the increased importance of patient safety to the quality of care provided by hospitals.
- **Technology.** Cardiac ICU was removed in Cardiology & Heart Surgery, as it already served as a requirement for hospitals to be eligible for ranking in this specialty. IMRT was added as a new technology to the Cancer and Urology specialties, recognizing the importance of this treatment modality to care in both specialties.
- **Patient Safety Score.** Two patient safety indicators were added to the patient safety score due to the availability of the POA indicator in the MedPAR dataset. Additionally, for display purposes, PSIs were converted from a 3-point scale to a 5-point scale to provide more nuanced information to consumers on the differences in patient safety performance between hospitals. For scoring, we now use a continuous value for PSI rather than a discrete value shown in the ranking tables.
- **MS-DRG deletions.** MS-DRG 689 (Kidney and Urinary Tract Infections with MCC) was removed from the Urology specialty because it does not reflect the quality of care of a urology service. A review of hospital data showed that the code is frequently used by other specialties within the institution to identify significant medical comorbidities rather than for identifying performance by the institution's urology service.
- **Eligibility for expert opinion-based specialties.** In previous years, a hospital was eligible if it received one or more physician nominations in the past 3 years. In 2014-15, a hospital was eligible for an expert opinion-based specialty only if it had an expert opinion score of 1% or greater. This change was made to restrict eligibility to hospitals that are more consistently nominated.

## Summary of 2013-2014 Changes

- **“Present on admission” data included in patient safety calculations.** Starting with the 2013-14 rankings, patient safety data were analyzed using the AHRQ PSI grouper software version 4.3. This version of the software incorporates POA data found in Medicare claims. This allows the software to remove cases where POA is indicated so that they do not count against a hospital in the assessment of patient safety events.
- **Neurology & Neurosurgery MS-DRG deletions.** Several procedures involving spinal fusion (MS-DRGs 028, 029, 030, 453, 453, 455, 456, 457, 458, 459, 460, 471,

472, 473, 490, and 491) were removed from the Neurology & Neurosurgery but retained in the Orthopedic specialty. The change was made to reflect the specialty that patients typically turn to when seeking spinal fusion procedures. This change also eliminated a redundancy in the coverage of these procedures in the rankings. As a result, these procedures are covered in the orthopedic specialty regardless of whether the surgery was performed by an orthopedic surgeon or neurosurgeon.

## Summary of 2012-2013 Changes

- **Surgical volume discharge minimums.** If the minimum total discharge value for a specialty was lower than 25, then 25 was set as the minimum for that specialty to ensure a sufficient number of discharges.
- **Normalization.** Normalization is the process of transforming index values into a distribution between 0 and 1 based on the range of possible values for a given measure. Individual measures were normalized before incorporating into the overall score. In previous years, standardization was used instead of normalization.
- **New weighting procedures for structural measures.** In previous years, factor analysis determined the relative weights of the structural measures. Starting in 2012-13, weights are based on the relative significance of each measure.
- **Expert Opinion.** In previous years, the hospital with the highest expert opinion score received the full point total (i.e., 32.5 points) for the expert opinion component. Starting in 2012-13, hospitals received a normalized expert opinion score. For example, if the highest expert opinion score in a given specialty is 80%, the hospital receives a normalized score of 0.80. Since expert opinion is worth 32.5% of the overall score, the hospital receives  $0.80 \times 32.5$ , or 26 points, for expert opinion instead of the full 32.5 points possible.
- **Survey response weighting.** Beginning in 2012-13, we calculated expert opinion values for each year of the survey independently and averaged the 3 years rather than pooling nominations across years. This was done to reduce the year-to-year fluctuation of expert opinion scores within specialties.
- **Honor Roll.** The methodology for assigning Honor Roll points was revised. For data-driven specialties, hospitals received 2 points for ranking among the top 10 hospitals and 1 point for ranking in the next 10 (i.e., 11–20). For expert opinion-based specialties, hospitals received 2 points for ranking in among the top 5 and 1 point for ranking in the next 5 (i.e., 6–10).

## Summary of 2011-2012 Changes

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



- **Cut-offs for expert opinion-based specialties.** In previous years, hospitals representing 3% or more of the total nominations in a specialty were published in print for the expert opinion-based specialties. For the 2011-12 rankings, this was revised to 5% to be more discerning.
- **Mortality displayed as survival scores.** The values displayed in the rankings tables for mortality were changed from mortality ratios to decile-based survival scores. The top 10% of hospitals—with the lowest relative mortality and highest 30-day survival—received a survival score value of 10; the next 10% of hospitals received a value of 9, and so on. The method for using the mortality scores to calculate the score did not change from that used in 2010.
- **Updated scoring for the Patient Safety Index.** The Patient Safety Index was revised to include 6 rather than 7 indicators (PSI 02: Death in low-mortality DRGs is no longer included). The approach to weighting individual PSIs also changed from the population at risk to equal weighting. The index scoring was also updated from the quintile scoring used in 2009-10 to a new 3-point scale that represents  $\geq 75^{\text{th}}$  percentile,  $25^{\text{th}}-74^{\text{th}}$  percentile and  $< 25^{\text{th}}$  percentile.

## Summary of 2010-2011 Changes

- **Expert opinion scores transformed.** Implemented a new log transformation of the expert opinion survey data prior to standardization. This change will allow expert opinion scores to cluster more, reducing the overall impact of this component on the final hospital ranking.
- **MS-DRGs incorporated.** The 3M Health Information Systems MS Grouper software was run on all 3 years of data included in the analyses, and we revised the assignment of cases to specialties using the MS-DRGs.
- **Change in structural volume measure.** The criteria used to determine volume for the structural variable have now changed to include only those cases meeting the minimum severity of illness thresholds set by the project using APR-DRGs and includes transfers; previously, this measure focused on all discharges for DRGs used by the project and excluded transfers. This change will allow the volume measure to more accurately reflect the actual volume of cases according to the specialty definitions.
- **Codes identifying transfers for mortality calculation revised.** As in previous years, transfers were identified using the claim source of inpatient admission variable on the MedPAR files. In past years, transfers were identified based on the value “4” for transfer from an acute hospital. This year the variable value “A” for transfer from critical access hospital was also used.
- **Low-discharge hospitals adjustment changed.** We revised the method for adjusting the scores for hospitals with low discharges on both volume and mortality. In previous years, we used an inverse-logit transformation. Starting in 2010, for hospitals with a discharge volume below the  $25^{\text{th}}$  percentile, we adjusted the observed

volume score and transfer-free mortality rate by creating an average weight based on the hospital's observed score and the score for all hospitals at or above the 25th percentile in volume.

- **“Outlier” transfer data adjusted.** We adjusted the observed transfer-free mortality rate for hospitals in the top and bottom quartiles of transfer-in rates to account for the fact that some hospitals may have had too many or too few cases included in the mortality calculations due to poor or inaccurate coding of administrative data.

## Summary of 2009 Changes

- **Eligibility criteria updated.** Hospitals with a minimum number of hospital beds may now be eligible for the rankings.
- **Key technologies updated.** The elements in this index were updated for a few specialties to remain consistent with the key technologies expected from a best hospital.
- **Intensivist on staff added.** Hospitals now receive credit in all data-driven specialties for having intensivists on staff.
- **Patient Safety Index added.** A Best Hospitals Patient Safety Index was created and applied to all data-driven specialties.
- **DRG groupings updated.** DRG groupings were updated for all data-driven specialties, consistent with typical year-to-year changes.
- **Physician survey.** The following instruction was removed from the physician survey: “Please do not list any hospital where you currently practice.” Physicians likely choose to work at a certain hospital because it is a best hospital. Therefore, it was deemed acceptable for them to vote for the hospital where they work.

## Summary of 2008 Changes

- **Advanced technologies updated.** The elements in this index were updated for a few specialties to remain consistent with the advanced technologies expected from a best hospital.
- **Patient services updated.** The elements in these services were updated for a few specialties to remain consistent with the patient services expected from a best hospital.
- **Trauma center certification dropped.** Trauma center certification was dropped from the Gynecology specialty.
- **Alzheimer's disease center added.** This element was added to the Neurology & Neurosurgery specialty.

- **30-day mortality rates added for Cancer.** Thirty-days-from-admission mortality rates were introduced in all data-driven specialties except Cancer in 2007. For 2010-11, 30-day mortality was used in Cancer as well.

## Summary of 2007 Changes

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

- **External organizations added.** Hospitals in the Cancer specialty now receive points for accreditation by FACT as a Cellular Therapy Facility. Hospitals in Geriatrics now receive points if they are recognized by NIA for having an Alzheimer’s center.
- **DRG groupings updated.** DRG groupings were updated for all specialties, consistent with typical year-to-year changes.
- **Transfers excluded.** Patients transferred into a hospital from another hospital are excluded from mortality and volume calculations to reduce the likelihood of either benefiting or suffering from “dumping” of patients.
- **30-day mortality introduced.** Thirty-days-from-admission mortality rates were introduced in all data-driven specialties (except Cancer) instead of death-at-discharge mortality rates.
- **Mortality data weighted.** Weights were applied to the MedPAR data based on the relative over- or underrepresentation of the cases’ DRGs among all patients, as identified in the HCUP data.
- **Neonatologists moved.** Neonatologists were removed from the Gynecology sample and included in the Pediatrics sample instead.
- **Physician survey.** An additional instruction was added to the physician survey: “Please do not list any hospital where you currently practice.”

## Summary of 2005 and 2006 Changes

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

**Appendix D**

**2023-2024 Best Hospitals Rankings, Data-Driven**

**Specialties**

# Best Hospitals 2023-24: Cancer

Rank	Hospital	U.S. News Specialty Score	30-day survival	Discharging patients to home	Patient experience	Number of patients	Nurse staffing	Intensivists	Advanced technologies	Patient services	Recognized as Nurse Magnet hospital	NCI-designated cancer center	Accredited by FACT	Expert opinion	Current AHA responder
1	University of Texas MD Anderson Cancer Center, Houston	100.0	5	5	5	12,941	2.0	Yes	8	8	1	Yes	2	30.7	Yes
2	Memorial Sloan Kettering Cancer Center, New York	92.8	5	5	5	6,578	2.5	Yes	8	8	1	Yes	2	28.8	Yes
3	Mayo Clinic, Rochester, Minn.	87.3	5	5	5	4,377	3.1	Yes	8	8	1	Yes	2	14.8	Yes
4	UCLA Medical Center, Los Angeles	86.5	5	5	5	1,978	3.1	Yes	8	8	1	Yes	2	4.4	Yes
5	Dana-Farber/Brigham and Women's Cancer Center, Boston	81.0	5	5	5	4,200	2.3	Yes	8	8	1	Yes	2	17.6	Yes
6	Hospitals of the University of Pennsylvania-Penn Presbyterian, Philadelphia	80.0	5	5	4	3,437	2.8	Yes	8	8	1	Yes	2	6.3	Yes
7	UCSF Health-UCSF Medical Center, San Francisco, Calif.	79.4	5	5	4	2,670	2.4	Yes	8	8	1	Yes	2	5.8	Yes
8	City of Hope Comprehensive Cancer Center, Duarte, Calif.	79.0	5	5	5	2,067	2.4	Yes	8	8	1	Yes	2	4.7	Yes
9	Johns Hopkins Hospital, Baltimore	77.9	5	5	5	2,189	2.7	Yes	8	8	1	Yes	2	10.0	Yes
10	Cleveland Clinic	76.9	5	5	4	3,553	2.3	Yes	8	8	1	Yes	2	6.3	Yes
11	Stanford Health Care-Stanford Hospital, Stanford, Calif.	76.8	5	5	5	2,635	3.7	Yes	8	8	1	Yes	2	4.0	Yes
12	Mount Sinai Hospital, New York	76.7	5	5	3	2,447	2.4	Yes	8	8	1	Yes	2	1.4	Yes
13	New York-Presbyterian Hospital-Columbia and Cornell	76.5	5	5	4	5,078	3.0	Yes	8	8	1	Yes	2	3.2	Yes
14	Cedars-Sinai Medical Center, Los Angeles	74.7	5	5	4	2,032	2.9	Yes	8	8	1	No	2	1.5	Yes
15	USC Norris Cancer Hospital-Keck Medical Center of USC, Los Angeles	74.0	5	5	5	1,180	2.6	Yes	8	8	1	Yes	2	2.1	Yes
16	University of Chicago Medical Center	73.0	5	5	4	2,376	2.4	Yes	8	8	1	Yes	2	3.2	Yes
17	Beth Israel Deaconess Medical Center, Boston	72.3	5	5	4	2,272	1.4	Yes	8	8	1	Yes	2	0.5	Yes
18	Northwestern Medicine-Northwestern Memorial Hospital, Chicago	71.8	5	5	4	2,635	2.0	Yes	8	8	1	Yes	2	2.4	Yes
19	UT Southwestern Medical Center, Dallas	70.9	5	5	5	2,233	2.4	Yes	8	8	1	Yes	2	1.2	Yes
20	Houston Methodist Hospital	70.5	5	5	4	1,870	2.1	Yes	8	8	1	No	2	0.3	Yes
20	UC San Diego Health-Moores Cancer Center	70.5	5	5	4	1,869	2.2	Yes	8	8	1	Yes	2	1.6	Yes
22	Perlmutter Cancer Center at NYU Langone Hospitals, New York	70.2	5	5	4	3,183	2.3	Yes	8	8	1	Yes	2	1.8	Yes
23	Siteman Cancer Center at Barnes-Jewish Hospital, Saint Louis	70.0	5	5	4	4,557	2.0	Yes	8	8	1	Yes	2	3.7	Yes
24	Mayo Clinic-Phoenix	69.8	5	5	5	1,564	2.3	Yes	8	8	1	Yes	2	2.1	Yes
25	UPMC Presbyterian Shadyside, Pittsburgh	69.6	5	5	4	4,405	2.4	Yes	8	8	1	Yes	2	2.9	Yes
26	North Shore University Hospital at Northwell Health, Manhasset, N.Y.	69.4	5	5	3	1,933	2.9	Yes	8	8	1	No	2	0.3	Yes
27	Mayo Clinic-Jacksonville, Fla.	68.8	5	5	5	1,474	2.6	Yes	8	8	1	Yes	2	2.4	Yes
28	Massachusetts General Hospital, Boston	68.5	5	5	5	3,447	2.6	Yes	8	8	1	Yes	2	6.8	Yes
29	Duke University Hospital, Durham, N.C.	67.5	5	5	5	2,484	2.2	Yes	8	8	1	Yes	2	4.1	Yes
30	Rush University Medical Center, Chicago	67.0	5	5	4	1,641	1.8	Yes	8	8	1	No	2	0.6	Yes
31	H. Lee Moffitt Cancer Center and Research Institute, Tampa	66.8	5	5	5	2,227	1.1	Yes	8	8	1	Yes	2	5.8	Yes
32	OHSU Hospital-Knight Cancer Institute, Portland, Ore.	64.6	5	5	4	1,664	2.2	Yes	8	8	1	Yes	2	0.8	Yes
33	Ohio State University James Cancer Hospital, Columbus	63.5	5	5	5	4,458	2.1	Yes	8	8	1	Yes	2	4.3	Yes
34	University of Michigan Health Rogel Cancer Center, Ann Arbor	63.4	5	5	5	2,644	2.7	Yes	8	8	1	Yes	2	3.2	Yes
35	Montefiore Medical Center, Bronx, N.Y.	63.1	5	5	3	2,371	2.0	Yes	8	8	0	Yes	2	0.7	Yes
36	UC Davis Medical Center, Sacramento, Calif.	62.7	5	5	4	1,626	2.8	Yes	8	8	1	Yes	2	0.7	Yes
37	M Health Fairview University of Minnesota Medical Center, Minneapolis	62.3	5	5	4	1,220	2.0	Yes	8	8	0	Yes	2	0.5	Yes
38	Fred Hutchinson Cancer Center/University of Washington Medical Center, Seattle	62.0	5	5	4	2,418	2.1	Yes	8	8	1	Yes	2	5.0	Yes
39	University Hospitals Seidman Cancer Center, Cleveland	61.9	5	5	3	1,897	2.5	Yes	8	8	1	Yes	2	0.6	Yes
40	Vanderbilt University Medical Center, Nashville, Tenn.	61.7	5	5	4	2,419	2.4	Yes	8	8	1	Yes	2	2.2	Yes
41	AdventHealth Orlando	61.6	5	5	4	4,200	1.5	Yes	8	8	0	No	2	0.1	Yes
42	Fox Chase Cancer Center, Philadelphia	61.3	5	5	4	1,114	2.8	Yes	8	8	1	Yes	2	1.1	Yes
43	Lenox Hill Hospital at Northwell Health, New York	61.2	5	5	3	859	3.7	Yes	8	8	1	No	0	0.3	Yes
44	University of Kentucky Albert B. Chandler Hospital, Lexington	60.5	5	5	4	1,355	1.6	Yes	8	8	1	Yes	2	0.8	Yes
45	Emory University Hospital, Atlanta	60.1	5	5	5	2,314	2.4	Yes	8	8	1	Yes	2	1.5	Yes
46	Presbyterian-St. Luke's Medical Center, Denver	60.0	5	5	4	966	1.8	Yes	6	8	0	No	2	0.0	Yes
47	Thomas Jefferson University Hospitals-Sidney Kimmel Cancer Center, Philadelphia	59.8	5	5	4	1,838	2.1	Yes	8	8	1	Yes	2	0.8	Yes
47	UNC Hospitals, Chapel Hill, N.C.	59.8	5	5	4	1,904	1.7	Yes	8	8	1	Yes	2	2.3	Yes
47	University of Kansas Hospital, Kansas City	59.8	5	5	5	2,430	2.1	Yes	8	8	1	Yes	2	0.4	Yes
50	Smilow Cancer Hospital at Yale New Haven, Conn.	59.7	5	5	3	2,941	2.1	Yes	8	8	1	Yes	2	2.0	Yes

# Best Hospitals 2023-24: Cardiology, Heart & Vascular Surgery

Rank	Hospital	U.S. News Specialty Score	30-day survival	Discharging patients to home	Patient experience	Number of patients	Nurse staffing	Intensivists	Public transparency	STS transparency	ACC transparency	Advanced technologies	Patient services	Trauma center	Recognized as Nurse Magnet hospital	Expert opinion	Current AHA responder
1	Cleveland Clinic	100.0	5	5	4	18,005	2.3	Yes	3	Yes	Yes	6	8	No	1	26.6	Yes
2	Cedars-Sinai Medical Center, Los Angeles	96.8	5	5	4	11,503	2.9	Yes	3	Yes	Yes	6	8	Yes	1	7.3	Yes
3	Mayo Clinic, Rochester, Minn.	95.1	5	5	5	12,900	3.1	Yes	3	Yes	Yes	6	8	Yes	1	24.6	Yes
4	Mount Sinai Hospital, New York	93.6	5	5	3	14,892	2.4	Yes	3	Yes	Yes	6	8	Yes	1	3.9	Yes
5	NYU Langone Hospitals, New York	91.9	5	5	4	18,872	2.3	Yes	3	Yes	Yes	6	8	Yes	1	4.5	Yes
6	New York-Presbyterian Hospital-Columbia and Cornell	89.4	5	5	4	20,319	3.0	Yes	3	Yes	Yes	6	8	Yes	1	9.4	Yes
7	Northwestern Medicine-Northwestern Memorial Hospital, Chicago	85.1	5	5	4	7,019	2.0	Yes	3	Yes	Yes	6	8	Yes	1	3.9	Yes
8	Massachusetts General Hospital, Boston	84.7	5	5	5	10,898	2.6	Yes	3	Yes	Yes	6	8	Yes	1	10.7	Yes
9	Stanford Health Care-Stanford Hospital, Stanford, Calif.	83.5	5	5	5	5,552	3.7	Yes	3	Yes	Yes	6	8	Yes	1	4.5	Yes
10	Lenox Hill Hospital at Northwell Health, New York	82.8	5	5	3	7,182	3.7	Yes	3	Yes	Yes	5	8	No	1	1.0	Yes
11	Hospitals of the University of Pennsylvania-Penn Presbyterian, Philadelphia	80.4	5	5	4	11,748	2.8	Yes	3	Yes	Yes	6	8	Yes	1	5.8	Yes
12	North Shore University Hospital at Northwell Health, Manhasset, N.Y.	78.0	5	5	3	12,655	2.9	Yes	3	Yes	Yes	6	8	Yes	1	1.0	Yes
13	Johns Hopkins Hospital, Baltimore	76.0	5	5	5	4,225	2.7	Yes	3	Yes	Yes	6	8	Yes	1	6.5	Yes
14	Houston Methodist Hospital	74.9	5	5	4	9,896	2.1	Yes	3	Yes	Yes	6	8	No	1	2.6	Yes
15	Rush University Medical Center, Chicago	74.8	5	5	4	3,830	1.8	Yes	3	Yes	Yes	6	8	Yes	1	0.9	Yes
16	Mount Sinai Morningside and Mount Sinai West Hospitals, New York	74.1	5	5	3	5,288	2.0	Yes	3	Yes	Yes	5	8	Yes	0	0.6	Yes
17	Texas Heart Institute at Baylor St. Luke's Medical Center, Houston	73.4	5	5	4	7,896	1.8	Yes	3	Yes	Yes	6	8	No	1	2.7	Yes
18	Brigham and Women's Hospital, Boston	73.2	5	5	4	8,057	2.3	Yes	3	Yes	Yes	6	8	Yes	1	8.2	Yes
18	UCLA Medical Center, Los Angeles	73.2	5	5	5	4,791	3.1	Yes	3	Yes	Yes	6	8	Yes	1	4.0	Yes
20	UT Southwestern Medical Center, Dallas	72.8	5	5	5	4,452	2.4	Yes	3	Yes	Yes	6	8	No	1	2.3	Yes
21	Vanderbilt University Medical Center, Nashville, Tenn.	71.4	5	5	4	8,182	2.4	Yes	3	Yes	Yes	6	8	Yes	1	3.6	Yes
22	University of Michigan Health Frankel Cardiovascular Center, Ann Arbor	68.9	5	5	5	7,801	2.7	Yes	3	Yes	Yes	6	8	Yes	1	3.4	Yes
23	UC San Diego Health-Cardiovascular Institute	67.9	5	5	4	4,373	2.2	Yes	3	Yes	Yes	6	8	Yes	1	0.9	Yes
24	Scripps La Jolla Hospitals, La Jolla, Calif.	66.7	5	5	4	8,782	2.7	Yes	3	Yes	Yes	5	8	Yes	1	0.9	Yes
25	Beaumont Hospital-Royal Oak, Mich.	66.6	5	5	3	10,777	1.7	Yes	3	Yes	Yes	5	8	Yes	1	0.8	Yes
26	St. Francis Hospital and Heart Center, Roslyn, N.Y.	66.4	5	5	5	13,508	1.8	Yes	3	Yes	Yes	5	8	No	1	0.7	Yes
27	UC Davis Medical Center, Sacramento, Calif.	66.3	5	5	4	3,781	2.8	Yes	3	Yes	Yes	5	8	Yes	1	0.6	Yes
28	Duke University Hospital, Durham, N.C.	65.9	5	5	5	8,305	2.2	Yes	3	Yes	Yes	6	8	Yes	1	6.5	Yes
29	Mayo Clinic-Jacksonville, Fla.	65.7	5	5	5	3,289	2.6	Yes	3	Yes	Yes	6	8	No	1	2.3	Yes
30	Advocate Christ Medical Center, Oak Lawn, Ill.	65.2	5	5	3	9,004	2.5	Yes	3	Yes	Yes	6	8	Yes	1	0.2	Yes
31	Montefiore Medical Center, Bronx, N.Y.	64.6	5	5	3	12,669	2.0	Yes	3	Yes	Yes	6	8	Yes	0	0.9	Yes
32	UCSF Health-UCSF Medical Center, San Francisco, Calif.	64.3	5	5	4	3,157	2.4	Yes	3	Yes	Yes	6	8	No	1	2.6	Yes
33	Mayo Clinic-Phoenix	63.9	5	5	5	3,744	2.3	Yes	3	Yes	Yes	6	8	No	1	2.6	Yes
33	MedStar Heart & Vascular Institute at MedStar Washington Hosp. Ctr., Washington, D.C.	63.9	5	5	2	11,280	2.4	Yes	3	Yes	Yes	6	8	Yes	0	1.5	Yes
35	Barnes-Jewish Hospital, Saint Louis	63.7	5	5	4	7,497	2.0	Yes	3	Yes	Yes	6	8	Yes	1	3.1	Yes
36	New York-Presbyterian Brooklyn Methodist Hospital, Brooklyn	63.6	5	5	3	4,692	1.2	Yes	3	Yes	Yes	5	8	Yes	0	0.1	Yes
36	Ohio State University Wexner Medical Center, Columbus	63.6	5	5	4	8,141	2.1	Yes	3	Yes	Yes	6	8	Yes	1	1.5	Yes
38	University of Chicago Medical Center	63.0	5	5	4	4,892	2.4	Yes	3	Yes	Yes	6	8	Yes	1	1.4	Yes
39	University of Alabama at Birmingham Hospital	62.9	5	5	4	7,794	2.3	Yes	3	Yes	Yes	6	8	Yes	1	1.8	Yes
40	Baylor Scott and White The Heart Hospital Plano, Texas	62.5	5	5	5	7,769	2.7	Yes	3	Yes	Yes	5	8	No	1	0.9	Yes
41	Keck Medical Center of USC, Los Angeles	62.4	5	5	4	2,334	2.6	Yes	3	Yes	Yes	6	8	No	1	1.0	Yes
42	Hackensack Univ. Medical Ctr. at Hackensack Meridian Health, Hackensack, N.J.	62.3	5	5	3	6,295	2.4	Yes	3	Yes	Yes	5	8	Yes	1	0.4	Yes
43	Aurora St. Luke's Medical Center, Milwaukee	61.9	5	5	4	11,127	2.3	Yes	3	Yes	Yes	6	8	No	1	0.3	Yes
44	Morristown Medical Center, Morristown, N.J.	61.5	5	5	4	11,524	1.9	Yes	3	Yes	Yes	5	8	Yes	1	0.8	Yes
45	Beth Israel Deaconess Medical Center, Boston	60.1	5	5	4	7,682	1.4	Yes	3	Yes	Yes	5	8	Yes	1	1.2	Yes
46	Virginia Mason Medical Center, Seattle	59.9	5	5	4	3,189	2.8	Yes	3	Yes	Yes	5	8	No	0	0.0	No
47	Saint Luke's Mid America Heart Institute, Kansas City, Mo.	59.5	5	5	5	5,993	1.7	Yes	3	Yes	Yes	6	8	Yes	1	0.9	Yes
48	UPMC Presbyterian Shadyside, Pittsburgh	59.3	5	5	4	8,253	2.4	Yes	3	Yes	Yes	6	8	Yes	1	2.4	Yes
49	Orlando Health-Orlando Regional Medical Center	59.1	5	5	3	13,747	2.0	Yes	3	Yes	Yes	5	8	Yes	1	0.1	Yes
49	University of Kansas Hospital, Kansas City	59.1	5	5	5	7,242	2.1	Yes	3	Yes	Yes	6	8	Yes	1	0.4	Yes

## Best Hospitals 2023-24: Diabetes & Endocrinology

Rank	Hospital	U.S. News Specialty Score	30-day survival	Discharging patients to home	Patient experience	Number of patients	Nurse staffing	Intensivists	Advanced technologies	Patient services	Recognized as Nurse Magnet hospital	Expert opinion	Current AHA responder
1	Mayo Clinic, Rochester, Minn.	100.0	5	5	5	1,186	3.1	Yes	4	8	1	25.1	Yes
2	NYU Langone Hospitals, New York	90.8	5	5	4	2,075	2.3	Yes	4	8	1	3.7	Yes
3	New York-Presbyterian Hospital-Columbia and Cornell	86.1	5	5	4	2,398	3.0	Yes	4	8	1	6.2	Yes
4	Houston Methodist Hospital	85.4	5	5	4	1,020	2.1	Yes	4	8	1	1.2	Yes
5	Northwestern Medicine-Northwestern Memorial Hospital, Chicago	84.9	5	5	4	735	2.0	Yes	4	8	1	1.8	Yes
6	UCLA Medical Center, Los Angeles	84.7	5	5	5	916	3.1	Yes	4	8	1	4.5	Yes
7	Cedars-Sinai Medical Center, Los Angeles	83.6	5	5	4	978	2.9	Yes	4	8	1	2.4	Yes
7	Massachusetts General Hospital, Boston	83.6	5	5	5	1,072	2.6	Yes	4	8	1	17.3	Yes
9	Stanford Health Care-Stanford Hospital, Stanford, Calif.	83.1	5	5	5	594	3.7	Yes	4	8	1	1.1	Yes
10	Mayo Clinic-Phoenix	79.5	5	5	5	501	2.3	Yes	4	8	1	1.7	Yes
11	Brigham and Women's Hospital, Boston	78.7	5	5	4	746	2.3	Yes	4	8	1	8.2	Yes
12	North Shore University Hospital at Northwell Health, Manhasset, N.Y.	77.6	5	5	3	1,122	2.9	Yes	4	8	1	0.8	Yes
13	NorthShore University Health System-Metro Chicago	76.6	5	5	4	1,329	1.3	Yes	4	8	1	0.0	Yes
13	UCSF Health-UCSF Medical Center, San Francisco, Calif.	76.6	5	5	4	646	2.4	Yes	4	8	1	7.3	Yes
15	Barnes-Jewish Hospital, Saint Louis	75.1	5	5	4	927	2.0	Yes	4	8	1	5.9	Yes
16	Mayo Clinic-Jacksonville, Fla.	74.1	5	5	5	563	2.6	Yes	4	8	1	1.7	Yes
17	UT Southwestern Medical Center, Dallas	73.9	5	5	5	673	2.4	Yes	4	8	1	1.6	Yes
18	Tampa General Hospital	71.9	5	5	3	1,343	2.4	Yes	4	8	1	0.5	Yes
19	Long Island Jewish Medical Center at Northwell Health, New Hyde Park, N.Y.	71.1	5	5	3	2,021	1.9	Yes	4	8	1	0.6	Yes
20	Ohio State University Wexner Medical Center, Columbus	71.0	5	5	4	1,009	2.1	Yes	4	8	1	2.1	Yes
21	Mount Sinai Hospital, New York	70.8	5	5	3	1,024	2.4	Yes	4	8	1	3.1	Yes
22	Beaumont Hospital-Royal Oak, Mich.	69.8	5	5	3	1,117	1.7	Yes	4	8	1	0.1	Yes
23	University of Chicago Medical Center	69.6	5	5	4	748	2.4	Yes	4	8	1	2.4	Yes
24	Cleveland Clinic	69.4	5	5	4	849	2.3	Yes	4	8	1	6.1	Yes
25	UPMC Presbyterian Shadyside, Pittsburgh	69.2	5	5	4	1,072	2.4	Yes	4	8	1	1.9	Yes
26	UCHealth University of Colorado Hospital, Aurora	68.7	5	5	4	662	2.1	Yes	4	8	1	6.3	Yes
27	Hospitals of the University of Pennsylvania-Penn Presbyterian, Philadelphia	68.6	5	5	4	814	2.8	Yes	4	8	1	4.2	Yes
27	Johns Hopkins Hospital, Baltimore	68.6	5	5	5	490	2.7	Yes	4	8	1	7.6	Yes
29	Baylor Scott and White All Saints Medical Center-Fort Worth	68.2	5	5	4	414	2.2	Yes	4	8	1	0.0	Yes
30	UW Medicine-University of Washington Medical Center, Seattle	67.6	5	5	4	508	2.1	Yes	4	8	1	3.2	Yes
31	Montefiore Medical Center, Bronx, N.Y.	67.4	5	5	3	2,194	2.0	Yes	4	8	0	1.6	Yes
32	Baylor St. Luke's Medical Center, Houston	67.2	5	5	4	540	1.8	Yes	4	8	1	0.6	Yes
33	AdventHealth Orlando	66.8	5	5	4	3,298	1.5	Yes	4	8	0	0.2	Yes
33	New York-Presbyterian Brooklyn Methodist Hospital, Brooklyn	66.8	5	5	3	1,082	1.2	Yes	4	8	0	0.0	Yes
33	UC Davis Medical Center, Sacramento, Calif.	66.8	5	5	4	463	2.8	Yes	4	8	1	0.1	Yes
36	Lenox Hill Hospital at Northwell Health, New York	66.7	5	4	3	609	3.7	Yes	4	8	1	0.8	Yes
37	John Muir Health-Walnut Creek Medical Center, Walnut Creek, Calif.	66.4	5	5	4	451	2.5	Yes	4	8	1	0.0	Yes
38	Rush University Medical Center, Chicago	66.3	5	5	4	634	1.8	Yes	4	8	1	0.4	Yes
39	Lancaster General Hospital, Lancaster, Pa.	66.2	5	5	4	869	1.6	Yes	4	8	1	0.0	Yes
39	UC San Diego Health-La Jolla and Hillcrest Hospitals, San Diego	66.2	5	5	4	381	2.2	Yes	4	8	1	0.7	Yes
41	Torrance Memorial Medical Center, Torrance, Calif.	65.7	5	5	5	748	2.5	Yes	4	8	1	0.1	Yes
42	University of Michigan Health-Ann Arbor	65.5	5	3	5	694	2.7	Yes	4	8	1	4.8	Yes
43	St. Francis Hospital and Heart Center, Roslyn, N.Y.	64.9	5	5	5	413	1.8	Yes	4	8	1	0.0	Yes
44	University of Alabama at Birmingham Hospital	64.3	5	5	4	605	2.3	Yes	4	8	1	0.8	Yes
45	Yale New Haven Hospital, New Haven, Conn.	64.0	5	3	3	1,357	2.1	Yes	4	8	1	3.4	Yes
46	Plainview Hospital at Northwell Health, Plainview, N.Y.	63.9	5	5	3	360	1.9	Yes	4	8	1	0.0	Yes
46	Vanderbilt University Medical Center, Nashville, Tenn.	63.9	4	5	4	763	2.4	Yes	4	8	1	3.1	Yes
48	Brigham and Women's Faulkner Hospital, Boston	63.8	5	5	4	378	1.0	Yes	4	7	1	0.4	Yes
49	Queen's Medical Center, Honolulu	63.4	5	5	4	885	1.5	Yes	4	8	1	0.0	Yes
50	UCI Medical Center, Orange, Calif.	63.0	5	5	4	538	2.0	Yes	4	8	1	1.0	Yes

<b>Best Hospitals 2023-24: Ear, Nose &amp; Throat</b>															
<b>Rank</b>	<b>Hospital</b>	<b>U.S. News Specialty Score</b>	<b>30-day survival</b>	<b>Discharging patients to home</b>	<b>Patient experience</b>	<b>Number of patients</b>	<b>Nurse staffing</b>	<b>Intensivists</b>	<b>Advanced technologies</b>	<b>Patient services</b>	<b>Trauma center</b>	<b>Recognized as Nurse Magnet hospital</b>	<b>Expert opinion</b>	<b>Current AHA responder</b>	
1	Stanford Health Care-Stanford Hospital, Stanford, Calif.	100.0	5	5	5	1,060	3.7	Yes	1	8	Yes	1	7.9	Yes	
2	University of Texas MD Anderson Cancer Center, Houston	87.5	5	5	5	2,139	2.0	Yes	1	8	No	1	4.4	Yes	
3	UCLA Medical Center, Los Angeles	86.1	5	5	5	1,526	3.1	Yes	1	8	Yes	1	5.9	Yes	
4	Mayo Clinic, Rochester, Minn.	85.3	4	5	5	1,925	3.1	Yes	1	8	Yes	1	8.9	Yes	
5	Vanderbilt University Medical Center, Nashville, Tenn.	83.0	5	5	4	1,647	2.4	Yes	1	8	Yes	1	8.6	Yes	
6	Memorial Sloan Kettering Cancer Center, New York	82.2	5	5	5	787	2.5	Yes	1	8	No	1	1.4	Yes	
7	Mass Eye and Ear, Massachusetts General Hospital, Boston	80.5	5	2	5	2,024	2.6	Yes	1	8	Yes	1	11.2	Yes	
8	Johns Hopkins Hospital, Baltimore	78.7	5	5	5	895	2.7	Yes	1	8	Yes	1	11.9	Yes	
9	Hospitals of the University of Pennsylvania-Penn Presbyterian, Philadelphia	78.1	5	2	4	1,648	2.8	Yes	1	8	Yes	1	7.4	Yes	
10	Barnes-Jewish Hospital, Saint Louis	77.6	5	5	4	1,364	2.0	Yes	1	8	Yes	1	4.5	Yes	
11	NYU Langone Hospitals, New York	74.7	5	5	4	811	2.3	Yes	1	8	Yes	1	3.1	Yes	
12	OHSU Hospital, Portland, Ore.	73.6	5	3	4	1,088	2.2	Yes	1	8	Yes	1	2.1	Yes	
12	University of Michigan Health-Ann Arbor	73.6	4	2	5	1,540	2.7	Yes	1	8	Yes	1	8.4	Yes	
14	UC San Diego Health-La Jolla and Hillcrest Hospitals, San Diego	71.3	5	3	4	624	2.2	Yes	1	8	Yes	1	2.1	Yes	
15	New York-Presbyterian Hospital-Columbia and Cornell	71.0	4	4	4	1,310	3.0	Yes	1	8	Yes	1	3.3	Yes	
15	University of Alabama at Birmingham Hospital	71.0	4	5	4	1,692	2.3	Yes	1	8	Yes	1	2.7	Yes	
17	Mayo Clinic-Phoenix	70.2	5	5	5	733	2.3	Yes	1	8	No	1	1.5	Yes	
18	UC Davis Medical Center, Sacramento, Calif.	70.0	5	4	4	880	2.8	Yes	1	8	Yes	1	2.4	Yes	
19	Cedars-Sinai Medical Center, Los Angeles	69.6	4	5	4	641	2.9	Yes	1	8	Yes	1	1.4	Yes	
20	UCSF Health-UCSF Medical Center, San Francisco, Calif.	68.2	5	4	4	1,139	2.4	Yes	1	8	No	1	5.9	Yes	
21	Brigham and Women's Hospital, Boston	67.7	5	3	4	726	2.3	Yes	1	8	Yes	1	2.2	Yes	
22	Rush University Medical Center, Chicago	66.7	5	5	4	732	1.8	Yes	1	8	Yes	1	0.9	Yes	
23	MUSC Health-University Medical Center, Charleston, S.C.	66.6	4	5	4	1,445	1.8	Yes	1	8	Yes	1	4.1	Yes	
23	University of Maryland Medical Center, Baltimore	66.6	5	4	4	786	2.4	Yes	1	8	Yes	1	1.0	Yes	
25	Cleveland Clinic	65.6	4	3	4	1,447	2.3	Yes	1	8	No	1	6.8	Yes	
26	UT Southwestern Medical Center, Dallas	64.9	5	5	5	858	2.4	Yes	1	8	No	1	1.4	Yes	
27	Jefferson Health-Thomas Jefferson University Hospitals, Philadelphia	64.7	3	3	4	1,582	2.1	Yes	1	8	Yes	1	3.6	Yes	
28	University of Iowa Hospitals and Clinics, Iowa City	63.0	4	5	4	799	1.7	Yes	1	8	Yes	1	6.5	Yes	
29	Long Island Jewish Medical Center at Northwell Health, New Hyde Park, N.Y.	62.9	4	5	3	1,376	1.9	Yes	1	8	Yes	1	1.2	Yes	
30	Manhattan Eye, Ear & Throat Hospital, New York	62.6	4	3	3	527	3.7	Yes	1	8	No	1	1.2	Yes	
30	UF Health Shands Hospital, Gainesville, Fla.	62.6	5	1	4	1,280	2.0	Yes	1	8	Yes	1	1.4	Yes	
32	Northwestern Medicine-Northwestern Memorial Hospital, Chicago	62.2	4	5	4	608	2.0	Yes	1	8	Yes	1	2.7	Yes	
32	University of Chicago Medical Center	62.2	4	5	4	753	2.4	Yes	1	8	Yes	1	1.2	Yes	
34	University of Kansas Hospital, Kansas City	61.4	4	3	5	1,236	2.1	Yes	1	8	Yes	1	2.3	Yes	
35	Ohio State University Wexner Medical Center, Columbus	61.1	3	5	4	1,686	2.1	Yes	1	8	Yes	1	6.5	Yes	
36	Mount Sinai Hospital, New York	60.7	3	5	3	1,100	2.4	Yes	1	8	Yes	1	3.3	Yes	
37	Emory University Hospital Midtown, Atlanta	59.7	5	5	3	1,195	1.7	Yes	1	8	No	0	1.9	Yes	
38	Yale New Haven Hospital, New Haven, Conn.	59.1	4	3	3	1,206	2.1	Yes	1	8	Yes	1	0.8	Yes	
39	Tampa General Hospital	59.0	3	5	3	758	2.4	Yes	1	8	Yes	1	0.7	Yes	
40	M Health Fairview University of Minnesota Medical Center, Minneapolis	58.7	5	3	4	322	2.0	Yes	1	8	Yes	0	1.9	Yes	
41	UNC Hospitals, Chapel Hill, N.C.	58.3	3	5	4	1,364	1.7	Yes	1	8	Yes	1	3.1	Yes	
42	Ochsner Medical Center, New Orleans	57.9	4	5	4	683	1.7	Yes	1	8	No	1	1.2	Yes	
43	Baylor Scott and White All Saints Medical Center-Fort Worth	57.6	4	3	4	763	2.2	Yes	1	8	No	1	0.0	Yes	
44	UPMC Presbyterian Shadyside, Pittsburgh	56.9	3	3	4	1,268	2.4	Yes	1	8	Yes	1	5.9	Yes	
44	UW Health University Hospital, Madison, Wis.	56.9	3	5	4	1,055	2.2	Yes	1	8	Yes	1	0.9	Yes	
46	Morristown Medical Center, Morristown, N.J.	56.5	4	3	4	554	1.9	Yes	1	8	Yes	1	0.1	Yes	
47	Beaumont Hospital-Royal Oak, Mich.	54.5	4	4	3	559	1.7	Yes	1	8	Yes	1	0.1	Yes	
48	Keck Medical Center of USC, Los Angeles	54.4	3	5	4	579	2.6	Yes	1	8	No	1	2.8	Yes	
49	Nebraska Medicine-Nebraska Medical Center, Omaha	54.3	4	3	4	361	2.1	Yes	1	8	Yes	1	0.4	Yes	
49	University of Kentucky Albert B. Chandler Hospital, Lexington	54.3	3	5	4	829	1.6	Yes	1	8	Yes	1	1.3	Yes	



<b>Best Hospitals 2023-24: Gastroenterology &amp; GI Surgery</b>															
<b>Rank</b>	<b>Hospital</b>	<b>U.S. News Specialty Score</b>	<b>30-day survival</b>	<b>Discharging patients to home</b>	<b>Patient experience</b>	<b>Number of patients</b>	<b>Nurse staffing</b>	<b>Intensivists</b>	<b>Advanced technologies</b>	<b>Patient services</b>	<b>Trauma center</b>	<b>Recognized as Nurse Magnet hospital</b>	<b>Expert opinion</b>	<b>Current AHA responder</b>	
1	Mayo Clinic, Rochester, Minn.	100.0	5	5	5	8,034	3.1	Yes	7	8	Yes	1	23.5	Yes	
2	Cedars-Sinai Medical Center, Los Angeles	92.3	5	5	4	6,019	2.9	Yes	7	8	Yes	1	4.8	Yes	
3	UCLA Medical Center, Los Angeles	90.1	5	5	5	3,631	3.1	Yes	7	8	Yes	1	6.0	Yes	
4	NYU Langone Hospitals, New York	87.6	5	5	4	9,997	2.3	Yes	7	8	Yes	1	4.7	Yes	
5	Houston Methodist Hospital	87.5	5	5	4	6,056	2.1	Yes	7	8	No	1	1.9	Yes	
6	Mount Sinai Hospital, New York	87.3	5	5	3	4,880	2.4	Yes	7	8	Yes	1	6.5	Yes	
7	New York-Presbyterian Hospital-Columbia and Cornell	85.9	5	5	4	10,314	3.0	Yes	7	8	Yes	1	5.3	Yes	
8	Cleveland Clinic	85.8	5	5	4	6,803	2.3	Yes	7	8	No	1	13.7	Yes	
9	Northwestern Medicine-Northwestern Memorial Hospital, Chicago	83.9	5	5	4	3,980	2.0	Yes	7	8	Yes	1	5.4	Yes	
10	Stanford Health Care-Stanford Hospital, Stanford, Calif.	82.8	5	5	5	3,900	3.7	Yes	7	8	Yes	1	2.3	Yes	
11	Hosps. of the Univ. of Pennsylvania-Penn Presbyterian, Philadelphia	82.4	5	5	4	4,714	2.8	Yes	7	8	Yes	1	4.4	Yes	
12	North Shore University Hospital at Northwell Health, Manhasset, N.Y.	81.2	5	5	3	5,234	2.9	Yes	7	8	Yes	1	0.8	Yes	
13	Keck Medical Center of USC, Los Angeles	81.0	5	5	4	1,740	2.6	Yes	7	8	No	1	1.7	Yes	
14	Johns Hopkins Hospital, Baltimore	80.8	5	5	5	3,054	2.7	Yes	7	8	Yes	1	7.1	Yes	
15	Mayo Clinic-Phoenix	80.5	5	5	5	3,115	2.3	Yes	7	8	No	1	4.6	Yes	
16	Memorial Sloan Kettering Cancer Center, New York	80.4	5	5	5	5,148	2.5	Yes	6	8	No	1	1.9	Yes	
17	Massachusetts General Hospital, Boston	80.0	5	5	5	5,968	2.6	Yes	7	8	Yes	1	7.6	Yes	
18	UC San Diego Health-La Jolla and Hillcrest Hospitals, San Diego	79.1	5	5	4	2,879	2.2	Yes	7	8	Yes	1	2.1	Yes	
19	Tampa General Hospital	77.3	5	5	3	3,605	2.4	Yes	7	8	Yes	1	0.7	Yes	
19	University of Texas MD Anderson Cancer Center, Houston	77.3	5	5	5	4,601	2.0	Yes	6	8	No	1	1.8	Yes	
21	Brigham and Women's Hospital, Boston	77.1	5	5	4	5,084	2.3	Yes	6	8	Yes	1	4.2	Yes	
22	University of Chicago Medical Center	76.6	5	5	4	3,284	2.4	Yes	7	8	Yes	1	4.0	Yes	
23	Rush University Medical Center, Chicago	76.3	5	5	4	2,329	1.8	Yes	7	8	Yes	1	1.3	Yes	
24	Beth Israel Deaconess Medical Center, Boston	76.1	5	5	4	4,244	1.4	Yes	7	8	Yes	1	2.1	Yes	
24	Mayo Clinic-Jacksonville, Fla.	76.1	5	5	5	3,167	2.6	Yes	7	8	No	1	4.0	Yes	
24	St. Francis Hospital and Heart Center, Roslyn, N.Y.	76.1	5	5	5	3,448	1.8	Yes	6	8	No	1	0.2	Yes	
27	UPMC Presbyterian Shadyside, Pittsburgh	76.0	5	5	4	6,400	2.4	Yes	7	8	Yes	1	3.1	Yes	
28	University of Michigan Health-Ann Arbor	75.6	5	5	5	4,427	2.7	Yes	7	8	Yes	1	5.2	Yes	
29	Barnes-Jewish Hospital, Saint Louis	75.1	5	5	4	5,902	2.0	Yes	7	8	Yes	1	4.1	Yes	
29	UCSF Health-UCSF Medical Center, San Francisco, Calif.	75.1	5	5	4	2,839	2.4	Yes	7	8	No	1	5.0	Yes	
31	Jefferson Health-Thomas Jefferson University Hospitals, Philadelphia	74.8	5	5	4	4,087	2.1	Yes	7	8	Yes	1	1.8	Yes	
32	Beaumont Hospital-Royal Oak, Mich.	74.3	5	5	3	5,354	1.7	Yes	7	8	Yes	1	0.2	Yes	
33	Baylor University Medical Center, Dallas	74.0	5	5	4	4,294	2.0	Yes	7	8	Yes	1	1.3	Yes	
34	Duke University Hospital, Durham, N.C.	73.7	5	5	5	4,126	2.2	Yes	7	8	Yes	1	3.4	Yes	
35	UT Southwestern Medical Center, Dallas	73.5	5	5	5	2,883	2.4	Yes	7	8	No	1	1.9	Yes	
36	OHSU Hospital, Portland, Ore.	72.6	5	5	4	2,383	2.2	Yes	7	8	Yes	1	0.5	Yes	
37	Scripps La Jolla Hospitals, La Jolla, Calif.	72.1	5	5	4	3,998	2.7	Yes	7	8	Yes	1	0.4	Yes	
38	Baylor St. Luke's Medical Center, Houston	71.6	5	5	4	3,064	1.8	Yes	7	8	No	1	1.7	Yes	
39	Cleveland Clinic Weston, Fla.	70.6	5	5	4	2,815	2.1	Yes	7	8	No	0	1.6	Yes	
40	Long Island Jewish Med. Ctr. at Northwell Health, New Hyde Park, N.Y.	69.8	5	5	3	5,954	1.9	Yes	6	8	Yes	1	0.5	Yes	
41	Advocate Good Shepherd Hospital, Barrington, Ill.	69.4	5	5	4	1,572	2.0	Yes	6	8	Yes	1	0.0	Yes	
42	Yale New Haven Hospital, New Haven, Conn.	69.0	5	5	3	5,761	2.1	Yes	7	8	Yes	1	1.9	Yes	
43	Vanderbilt University Medical Center, Nashville, Tenn.	68.4	5	5	4	4,187	2.4	Yes	7	8	Yes	1	1.8	Yes	
44	University of Kansas Hospital, Kansas City	68.3	5	5	5	3,972	2.1	Yes	7	8	Yes	1	0.2	Yes	
45	Ohio State University Wexner Medical Center, Columbus	67.5	5	5	4	6,255	2.1	Yes	7	8	Yes	1	2.5	Yes	
46	Cleveland Clinic Hillcrest Hospital, Mayfield Heights, Ohio	67.4	5	5	3	3,620	1.5	Yes	6	8	Yes	1	0.3	Yes	
47	Beaumont Hospital-Troy, Mich.	67.3	5	5	4	4,858	1.6	Yes	6	8	Yes	1	0.1	Yes	
48	NorthShore University Health System-Metro Chicago	67.0	5	5	4	5,299	1.3	Yes	6	8	Yes	1	0.3	Yes	
49	Queen's Medical Center, Honolulu	66.9	5	5	4	3,332	1.5	Yes	7	8	Yes	1	0.1	Yes	
50	University of Alabama at Birmingham Hospital	66.7	5	5	4	3,524	2.3	Yes	7	8	Yes	1	1.5	Yes	

**Best Hospitals 2023-24:  
Geriatrics**

Rank	Hospital	U.S. News Specialty Score	30-day survival	Discharging patients to home	Patient experience	Number of patients	Nurse staffing	Intensivists	Patient services	Recognized as Nurse Magnet hospital	NIA-designated Alzheimer's center	Expert opinion	Current AHA responder
1	Mount Sinai Hospital, New York	100.0	5	5	3	27,593	2.4	Yes	9	1	Yes	16.1	Yes
2	NYU Langone Hospitals, New York	94.3	5	5	4	58,631	2.3	Yes	9	1	Yes	2.3	Yes
3	UCLA Medical Center, Los Angeles	92.2	5	5	5	17,667	3.1	Yes	9	1	No	18.0	Yes
4	UCSF Health-UCSF Medical Center, San Francisco, Calif.	91.6	5	5	4	11,548	2.4	Yes	9	1	Yes	10.3	Yes
5	Mayo Clinic, Rochester, Minn.	91.0	5	5	5	30,955	3.1	Yes	9	1	Yes	7.4	Yes
6	Cleveland Clinic	90.3	5	5	4	23,717	2.3	Yes	9	1	Yes	5.7	Yes
7	New York-Presbyterian Hospital-Columbia and Cornell	86.6	5	5	4	63,671	3.0	Yes	9	1	Yes	3.4	Yes
8	Cedars-Sinai Medical Center, Los Angeles	84.9	5	5	4	33,004	2.9	Yes	7	1	No	1.1	Yes
9	Northwestern Medicine-Northwestern Memorial Hospital, Chicago	83.3	5	5	4	16,775	2.0	Yes	9	1	Yes	1.0	Yes
10	Stanford Health Care-Stanford Hospital, Stanford, Calif.	83.1	5	5	5	16,032	3.7	Yes	9	1	Yes	1.0	Yes
11	Hosps. of the Univ. of Pennsylvania-Penn Presbyterian, Philadelphia	82.5	5	5	4	19,793	2.8	Yes	9	1	Yes	2.3	Yes
12	Massachusetts General Hospital, Boston	81.7	5	5	5	27,955	2.6	Yes	9	1	Yes	4.8	Yes
12	Rush University Medical Center, Chicago	81.7	5	5	4	11,054	1.8	Yes	9	1	Yes	1.5	Yes
14	Johns Hopkins Hospital, Baltimore	81.3	5	5	5	10,237	2.7	Yes	9	1	Yes	7.5	Yes
15	Houston Methodist Hospital	80.8	5	5	4	24,853	2.1	Yes	9	1	No	1.4	Yes
16	North Shore University Hospital at Northwell Health, Manhasset, N.Y.	79.8	5	5	3	38,182	2.9	Yes	9	1	No	1.2	Yes
17	UC San Diego Health-La Jolla and Hillcrest Hospitals, San Diego	78.1	5	5	4	11,477	2.2	Yes	9	1	Yes	2.6	Yes
18	Lenox Hill Hospital at Northwell Health, New York	76.8	5	5	3	18,248	3.7	Yes	9	1	No	0.9	Yes
19	Mayo Clinic-Phoenix	75.3	5	5	5	11,972	2.3	Yes	8	1	Yes	1.6	Yes
20	UT Southwestern Medical Center, Dallas	74.6	5	5	5	12,048	2.4	Yes	9	1	No	0.9	Yes
21	University of Michigan Health-Ann Arbor	73.7	5	5	5	15,669	2.7	Yes	9	1	Yes	3.9	Yes
22	Keck Medical Center of USC, Los Angeles	73.1	5	5	4	5,246	2.6	Yes	9	1	Yes	1.0	Yes
23	St. Francis Hospital and Heart Center, Roslyn, N.Y.	72.6	5	5	5	25,120	1.8	Yes	8	1	No	0.1	Yes
24	Brigham and Women's Hospital, Boston	71.4	5	5	4	20,380	2.3	Yes	9	1	Yes	1.4	Yes
25	Barnes-Jewish Hospital, Saint Louis	71.1	5	5	4	19,853	2.0	Yes	9	1	Yes	0.9	Yes
26	Yale New Haven Hospital, New Haven, Conn.	69.8	5	5	3	33,745	2.1	Yes	9	1	Yes	3.2	Yes
27	Mayo Clinic-Jacksonville, Fla.	69.6	5	5	5	10,507	2.6	Yes	8	1	Yes	1.3	Yes
28	Duke University Hospital, Durham, N.C.	69.4	5	5	5	16,874	2.2	Yes	9	1	Yes	5.3	Yes
29	Long Island Jewish Medical Ctr. at Northwell Health, New Hyde Park, N.Y.	69.3	5	5	3	38,993	1.9	Yes	9	1	No	1.5	Yes
30	UPMC Presbyterian Shadyside, Pittsburgh	68.9	5	5	4	21,699	2.4	Yes	9	1	Yes	3.4	Yes
31	Mount Sinai Morningside and Mount Sinai West Hospitals, New York	68.5	5	5	3	18,781	2.0	Yes	9	0	No	2.9	Yes
32	UC Davis Medical Center, Sacramento, Calif.	68.4	5	5	4	10,125	2.8	Yes	9	1	Yes	0.4	Yes
33	Huntington Hospital at Northwell Health, Huntington, N.Y.	67.6	5	5	4	16,434	2.2	Yes	9	1	No	0.3	Yes
34	Beaumont Hospital-Royal Oak, Mich.	67.3	5	5	3	31,306	1.7	Yes	9	1	No	0.2	Yes
34	University of Kansas Hospital, Kansas City	67.3	5	5	5	15,373	2.1	Yes	8	1	Yes	0.3	Yes
36	Hackensack Univ. Med. Ctr. at Hackensack Meridian Health, Hackensack, N.J.	66.1	5	5	3	19,597	2.4	Yes	9	1	No	1.5	Yes
37	Beaumont Hospital-Grosse Pointe, Mich.	65.8	5	5	4	7,684	1.5	Yes	9	1	No	0.0	Yes
38	Baylor St. Luke's Medical Center, Houston	65.6	5	5	4	11,349	1.8	Yes	7	1	No	0.7	Yes
39	Scripps La Jolla Hospitals, La Jolla, Calif.	65.1	5	5	4	22,597	2.7	Yes	7	1	No	0.1	Yes
40	Vanderbilt University Medical Center, Nashville, Tenn.	64.7	5	5	4	16,163	2.4	Yes	9	1	Yes	1.1	Yes
41	Emory University Hospital at Wesley Woods, Atlanta	64.5	5	5	5	11,757	2.4	Yes	9	1	Yes	0.5	Yes
42	UF Health Shands Hospital, Gainesville, Fla.	62.6	5	5	4	19,895	2.0	Yes	9	1	Yes	0.5	Yes
43	Northwestern Lake Forest Hospital, Lake Forest, Ill.	62.5	5	5	4	6,189	1.7	Yes	9	1	No	0.1	Yes
43	University of Chicago Medical Center	62.5	5	5	4	11,749	2.4	Yes	9	1	No	1.5	Yes
45	New York-Presbyterian Brooklyn Methodist Hospital, Brooklyn	62.4	5	5	3	17,958	1.2	Yes	9	0	No	0.0	Yes
46	Morristown Medical Center, Morristown, N.J.	62.1	5	5	4	28,154	1.9	Yes	9	1	No	1.5	Yes
47	Mount Sinai Beth Israel, New York	61.9	5	5	3	16,992	1.4	Yes	9	0	No	1.5	Yes
47	University of Alabama at Birmingham Hospital	61.9	5	5	4	15,955	2.3	Yes	9	1	Yes	2.5	Yes
49	Jefferson Health-Thomas Jefferson University Hospitals, Philadelphia	61.8	5	5	4	17,808	2.1	Yes	9	1	No	0.7	Yes
50	DMC Harper University Hospital, Detroit	61.4	5	5	1	3,804	1.0	Yes	8	0	Yes	0.1	Yes

### Best Hospitals 2023-24: Neurology & Neurosurgery

Rank	Hospital	U.S. News Specialty Score	30-day survival	Discharging patients to home	Patient experience	Number of patients	Nurse staffing	Intensivists	Advanced technologies	Patient services	Trauma center	Recognized as Nurse Magnet hospital	NAEC-designated epilepsy center	NIA-designated Alzheimer's center	Public transparency	Expert opinion	Current AHA responder
1	NYU Langone Hospitals, New York	100.0	5	5	4	7,256	2.3	Yes	5	9	Yes	1	Yes	Yes	1	5.5	Yes
2	UCSF Health-UCSF Medical Center, San Francisco, Calif.	96.9	5	5	4	2,759	2.4	Yes	5	9	No	1	Yes	Yes	1	17.4	Yes
3	New York-Presbyterian Hospital-Columbia and Cornell	93.3	5	5	4	8,648	3.0	Yes	5	9	Yes	1	Yes	Yes	1	10.4	Yes
4	Mayo Clinic, Rochester, Minn.	91.0	5	5	5	4,806	3.1	Yes	5	9	Yes	1	Yes	Yes	1	20.1	Yes
5	Cedars-Sinai Medical Center, Los Angeles	88.4	5	5	4	3,733	2.9	Yes	5	8	Yes	1	Yes	No	1	1.8	Yes
6	UCLA Medical Center, Los Angeles	88.1	5	5	5	2,910	3.1	Yes	5	9	Yes	1	Yes	No	1	7.5	Yes
7	Johns Hopkins Hospital, Baltimore	85.5	5	5	5	2,729	2.7	Yes	5	9	Yes	1	Yes	Yes	1	14.9	Yes
8	Massachusetts General Hospital, Boston	84.5	5	5	5	5,016	2.6	Yes	5	9	Yes	1	Yes	Yes	1	14.0	Yes
9	Mount Sinai Hospital, New York	84.2	5	5	3	3,205	2.4	Yes	5	9	Yes	1	Yes	Yes	1	2.5	Yes
10	Northwestern Medicine-Northwestern Memorial Hospital, Chicago	83.8	5	5	4	3,031	2.0	Yes	5	9	Yes	1	Yes	Yes	1	4.0	Yes
11	Houston Methodist Hospital	83.3	5	5	4	4,659	2.1	Yes	5	9	No	1	Yes	No	1	1.2	Yes
12	Stanford Health Care-Stanford Hospital, Stanford, Calif.	83.0	5	5	5	2,913	3.7	Yes	5	9	Yes	1	Yes	Yes	1	4.5	Yes
13	Hospitals of the University of Pennsylvania-Penn Presbyterian, Philadelphia	82.1	5	5	4	3,636	2.8	Yes	5	9	Yes	1	Yes	Yes	1	5.5	Yes
14	Rush University Medical Center, Chicago	81.4	5	5	4	2,580	1.8	Yes	5	9	Yes	1	Yes	Yes	1	3.5	Yes
15	Long Island Jewish Medical Center at Northwell Health, New Hyde Park, N.Y.	79.2	5	5	3	4,420	1.9	Yes	5	9	Yes	1	Yes	No	1	0.7	Yes
16	Cleveland Clinic	79.0	5	5	4	4,573	2.3	Yes	5	9	No	1	Yes	Yes	1	7.4	Yes
17	Barnes-Jewish Hospital, Saint Louis	78.8	5	5	4	5,057	2.0	Yes	5	9	Yes	1	Yes	Yes	1	5.0	Yes
18	UT Southwestern Medical Center, Dallas	76.5	5	5	5	2,811	2.4	Yes	5	9	No	1	Yes	No	1	2.0	Yes
19	North Shore University Hospital at Northwell Health, Manhasset, N.Y.	76.2	5	5	3	4,656	2.9	Yes	5	9	Yes	1	Yes	No	1	0.7	Yes
20	University of Miami Hospital and Clinics-UHealth Tower	75.5	5	5	4	1,095	1.5	Yes	5	9	No	0	Yes	Yes	1	2.0	Yes
21	UC San Diego Health-La Jolla and Hillcrest Hospitals, San Diego	74.1	5	5	4	2,304	2.2	Yes	5	9	Yes	1	Yes	Yes	1	2.0	Yes
22	Hackensack University Medical Center at Hackensack Meridian Health, Hackensack, N.J.	73.1	5	5	3	2,889	2.4	Yes	5	9	Yes	1	Yes	No	1	0.3	Yes
23	Beaumont Hospital-Royal Oak, Mich.	71.6	5	5	3	4,119	1.7	Yes	5	9	Yes	1	Yes	No	1	0.0	Yes
24	Mayo Clinic-Jacksonville, Fla.	71.5	5	5	5	2,325	2.6	Yes	5	9	No	1	Yes	Yes	1	3.8	Yes
25	University of Kansas Hospital, Kansas City	71.4	5	5	5	3,910	2.1	Yes	5	9	Yes	1	Yes	Yes	1	0.7	Yes
26	Brigham and Women's Hospital, Boston	71.2	5	5	4	4,266	2.3	Yes	5	9	Yes	1	Yes	Yes	1	5.9	Yes
27	Mayo Clinic-Phoenix	70.8	5	5	5	1,666	2.3	Yes	5	9	No	1	Yes	Yes	1	3.7	Yes
28	Mount Sinai Morningside and Mount Sinai West Hospitals, New York	70.6	5	5	3	3,351	2.0	Yes	5	9	Yes	0	Yes	No	1	0.7	Yes
29	Duke University Hospital, Durham, N.C.	70.1	5	5	5	3,624	2.2	Yes	5	9	Yes	1	Yes	Yes	1	4.6	Yes
30	Memorial Hermann Hospital, Houston	70.0	5	5	4	5,783	2.4	Yes	5	9	Yes	1	Yes	No	1	1.2	Yes
30	UF Health Shands Hospital, Gainesville, Fla.	70.0	5	5	4	4,240	2.0	Yes	5	9	Yes	1	Yes	Yes	1	2.3	Yes
32	New York-Presbyterian Brooklyn Methodist Hospital, Brooklyn	69.9	5	5	3	2,115	1.2	Yes	5	9	Yes	0	No	No	1	0.1	Yes
32	UC Davis Medical Center, Sacramento, Calif.	69.9	5	5	4	2,031	2.8	Yes	5	9	Yes	1	Yes	Yes	1	0.6	Yes
34	Northwestern Lake Forest Hospital, Lake Forest, Ill.	69.5	5	5	4	747	1.7	Yes	5	9	Yes	1	No	No	1	0.2	Yes
35	AdventHealth Orlando	69.1	5	5	4	10,615	1.5	Yes	5	9	No	0	Yes	No	1	0.2	Yes
36	Baylor St. Luke's Medical Center, Houston	68.7	5	5	4	2,602	1.8	Yes	5	9	No	1	Yes	No	1	0.7	Yes
37	University of Michigan Health-Ann Arbor	68.4	4	5	5	2,654	2.7	Yes	5	9	Yes	1	Yes	Yes	1	3.1	Yes
38	Baylor University Medical Center, Dallas	68.3	5	5	4	3,823	2.0	Yes	5	8	Yes	1	Yes	No	1	0.4	Yes
39	Baptist Health Miami Neuroscience Institute at Baptist Hospital of Miami	67.7	5	5	3	3,298	1.4	Yes	5	8	No	1	Yes	No	1	1.0	Yes
40	Lenox Hill Hospital at Northwell Health, New York	67.6	5	5	3	1,916	3.7	Yes	5	9	No	1	Yes	No	1	0.7	Yes
40	Thomas Jefferson University Hospitals-Vickie and Jack Farber Institute for Neuroscience, PI	67.6	5	5	4	4,672	2.1	Yes	5	9	Yes	1	Yes	No	1	1.8	Yes
42	NorthShore University Health System-Metro Chicago	67.5	5	5	4	4,107	1.3	Yes	5	9	Yes	1	No	No	1	0.2	Yes
43	UPMC Presbyterian Shadyside, Pittsburgh	67.4	3	5	4	6,030	2.4	Yes	5	9	Yes	1	Yes	Yes	1	2.1	Yes
44	Ohio State University Wexner Medical Center, Columbus	67.0	5	5	4	5,834	2.1	Yes	5	9	Yes	1	Yes	No	1	2.2	Yes
44	St. Francis Hospital and Heart Center, Roslyn, N.Y.	67.0	5	5	5	1,953	1.8	Yes	5	8	No	1	No	No	1	0.1	Yes
46	Emory University Hospital, Atlanta	66.6	5	5	5	3,066	2.4	Yes	5	9	No	1	Yes	Yes	1	2.2	Yes
47	University of Chicago Medical Center	66.5	5	5	4	2,113	2.4	Yes	5	9	Yes	1	Yes	No	1	1.3	Yes
48	Keck Medical Center of USC, Los Angeles	66.3	4	5	4	910	2.6	Yes	5	9	No	1	Yes	Yes	1	1.8	Yes
49	Hoag Memorial Hospital Presbyterian, Newport Beach, Calif.	66.0	5	5	5	3,240	1.9	Yes	5	9	No	1	Yes	No	1	0.2	Yes
49	Penn State Health Milton S. Hershey Medical Center, Hershey, Pa.	66.0	5	5	4	3,101	2.1	Yes	5	9	Yes	1	Yes	No	1	0.6	Yes

**Best Hospitals 2023-24:  
Obstetrics & Gynecology**

Rank	Hospital	U.S. News Specialty Score	30-day survival	Discharging patients to home	Patient experience	Number of patients	Nurse staffing	Intensivists	Advanced technologies	Patient services	Recognized as Nurse Magnet hospital	Public transparency	Expert opinion	Current AHA responder
1	Brigham and Women's Hospital, Boston	100.0	5	5	4	1,302	2.3	Yes	5	9	1	1	7.1	Yes
2	Johns Hopkins Hospital, Baltimore	90.3	5	5	5	515	2.7	Yes	5	9	1	1	6.5	Yes
3	Mayo Clinic, Rochester, Minn.	89.2	5	3	5	1,597	3.1	Yes	5	9	1	1	8.6	Yes
4	Yale New Haven Hospital, New Haven, Conn.	85.0	5	4	3	1,240	2.1	Yes	5	9	1	1	2.6	Yes
5	Stanford Health Care-Stanford Hospital, Stanford, Calif.	84.3	5	3	5	871	3.7	Yes	5	9	1	1	2.1	Yes
6	Cleveland Clinic	83.0	5	3	4	1,045	2.3	Yes	5	9	1	1	8.8	Yes
7	Cedars-Sinai Medical Center, Los Angeles	78.4	5	5	4	670	2.9	Yes	5	9	1	1	1.6	Yes
8	UCLA Medical Center, Los Angeles	77.0	4	5	5	647	3.1	Yes	5	9	1	1	1.9	Yes
9	Tampa General Hospital	73.7	4	5	3	676	2.4	Yes	5	9	1	1	1.0	Yes
9	UW Health University Hospital, Madison, Wis.	73.7	5	5	4	647	2.2	Yes	5	9	1	0	0.6	Yes
11	Long Island Jewish Medical Center at Northwell Health, New Hyde Park, N.Y.	73.3	4	5	3	1,475	1.9	Yes	5	9	1	1	2.5	Yes
11	Mount Sinai Hospital, New York	73.3	4	4	3	1,146	2.4	Yes	5	9	1	1	1.8	Yes
13	New York-Presbyterian Hospital-Columbia and Cornell	73.0	3	5	4	1,643	3.0	Yes	5	9	1	1	6.3	Yes
13	University of Alabama at Birmingham Hospital	73.0	3	5	4	1,355	2.3	Yes	5	9	1	1	2.3	Yes
15	UC San Diego Health-La Jolla and Hillcrest Hospitals, San Diego	72.4	4	3	4	685	2.2	Yes	5	9	1	1	1.9	Yes
16	Lenox Hill Hospital at Northwell Health, New York	71.4	3	4	3	512	3.7	Yes	5	9	1	1	4.4	Yes
17	Northwestern Medicine-Northwestern Memorial Hospital, Chicago	70.9	4	5	4	441	2.0	Yes	5	9	1	1	4.4	Yes
18	Inova Fairfax Hospital, Falls Church, Va.	70.7	3	5	4	1,851	1.8	Yes	5	9	1	1	0.8	Yes
19	MUSC Health-University Medical Center, Charleston, S.C.	70.1	4	5	4	974	1.8	Yes	5	9	1	1	0.9	Yes
20	Hospitals of the University of Pennsylvania-Penn Presbyterian, Philadelphia	69.6	3	3	4	720	2.8	Yes	5	9	1	1	2.6	Yes
21	Barnes-Jewish Hospital, Saint Louis	68.3	4	3	4	1,220	2.0	Yes	5	9	1	1	3.4	Yes
22	Vanderbilt University Medical Center, Nashville, Tenn.	67.3	3	4	4	525	2.4	Yes	5	9	1	1	2.4	Yes
23	Aurora St. Luke's Medical Center, Milwaukee	67.2	4	3	4	434	2.3	Yes	5	9	1	1	0.1	Yes
24	John Muir Health-Walnut Creek Medical Center, Walnut Creek, Calif.	66.4	4	4	4	552	2.5	Yes	5	8	1	1	0.0	Yes
25	Houston Methodist Hospital	66.2	4	3	4	514	2.1	Yes	5	8	1	1	1.4	Yes
25	NYU Langone Hospitals, New York	66.2	3	4	4	1,271	2.3	Yes	5	9	1	1	3.7	Yes
27	Duke University Hospital, Durham, N.C.	65.8	3	5	5	958	2.2	Yes	5	8	1	1	4.6	Yes
28	Beaumont Hospital-Royal Oak, Mich.	65.2	4	5	3	818	1.7	Yes	5	9	1	1	0.6	Yes
28	University of Chicago Medical Center	65.2	4	3	4	696	2.4	Yes	5	9	1	1	1.0	Yes
30	West Penn Hospital, Pittsburgh	65.1	4	3	4	1,703	0.9	Yes	5	9	1	1	0.2	Yes
31	AdventHealth Orlando	64.1	4	3	4	2,162	1.5	Yes	5	9	1	1	0.2	Yes
32	Nebraska Methodist Hospital, Omaha	64.0	4	3	4	895	1.5	Yes	5	9	1	1	0.0	Yes
33	Advocate Christ Medical Center, Oak Lawn, Ill.	63.9	4	3	3	808	2.5	Yes	5	9	1	1	0.1	Yes
33	Rush University Medical Center, Chicago	63.9	3	5	4	499	1.8	Yes	5	9	1	1	0.7	Yes
35	Scripps La Jolla Hospitals, La Jolla, Calif.	63.7	3	4	4	738	2.7	Yes	5	9	1	1	0.6	Yes
36	Morristown Medical Center, Morristown, N.J.	63.1	4	3	4	1,081	1.9	Yes	5	9	1	1	0.2	Yes
37	Ohio State University Wexner Medical Center, Columbus	62.4	3	1	4	1,107	2.1	Yes	5	9	1	1	3.1	Yes
38	UMass Memorial Medical Center, Worcester	62.2	4	3	3	621	1.6	Yes	5	9	0	1	0.2	Yes
39	UF Health Shands Hospital, Gainesville, Fla.	61.0	3	3	4	707	2.0	Yes	5	9	1	1	1.0	Yes
40	University of Kentucky Albert B. Chandler Hospital, Lexington	60.9	3	5	4	732	1.6	Yes	5	9	1	1	0.2	Yes
41	West Virginia University Hospitals, Morgantown, W.Va.	60.6	3	3	4	432	2.2	Yes	5	9	1	1	0.2	Yes
42	MemorialCare Long Beach Medical Center, Long Beach, Calif.	60.5	3	5	4	405	2.4	Yes	5	9	1	1	0.4	Yes
43	UT Southwestern Medical Center, Dallas	60.3	3	3	5	509	2.4	Yes	5	9	1	1	1.9	Yes
44	UC Davis Medical Center, Sacramento, Calif.	60.2	3	3	4	624	2.8	Yes	5	9	1	1	0.7	Yes
44	UCSF Health-UCSF Medical Center, San Francisco, Calif.	60.2	3	3	4	506	2.4	Yes	5	9	1	1	4.4	Yes
46	Sarasota Memorial Hospital, Fla.	60.1	3	4	4	569	1.6	Yes	5	9	1	1	0.2	Yes
47	Good Samaritan University Hospital, West Islip, N.Y.	59.6	4	3	3	305	1.3	Yes	5	9	1	0	0.1	Yes
47	Keck Medical Center of USC, Los Angeles	59.6	3	3	4	192	2.6	Yes	5	9	1	1	1.4	Yes
49	Prisma Health Greenville Memorial Hospital, Greenville, S.C.	59.5	4	3	3	880	1.2	Yes	5	9	1	0	0.2	Yes
50	Emory University Hospital, Atlanta	59.1	3	5	5	417	2.4	Yes	5	9	1	1	1.2	Yes

<b>Best Hospitals 2023-24: Orthopedics</b>		U.S. News Specialty Score	30-day survival	Discharging patients to home	Prevention of outpatient procedural complications	Patient experience	Number of patients	Nurse staffing	Intensivists	Advanced technologies	Patient services	Trauma center	Recognized as Nurse Magnet hospital	Expert opinion	Current AHA responder
Rank	Hospital														
1	Hospital for Special Surgery, New York	100.0	5	5	5	5	6,522	3.8	Yes	2	7	No	1.0	17.6	Yes
2	Cedars-Sinai Medical Center, Los Angeles	85.0	5	5	3	4	4,416	2.9	Yes	2	7	Yes	1.0	3.5	Yes
3	Mayo Clinic, Rochester, Minn.	84.3	5	3	4	5	6,333	3.1	Yes	2	7	Yes	1.0	15.8	Yes
4	NYU Langone Orthopedic Hospital, New York	81.8	5	5	4	4	7,118	2.3	Yes	2	7	Yes	1.0	7.1	Yes
5	New York-Presbyterian Hospital-Columbia and Cornell	80.0	5	5	5	4	6,344	3	Yes	2	7	Yes	1.0	3	Yes
6	Stanford Health Care-Stanford Hospital, Stanford, Calif.	78.5	5	5	3	5	3,443	3.7	Yes	2	7	Yes	1.0	2.3	Yes
7	Santa Monica-UCLA Medical Center and Orthopedic Hospital, Los Angeles	77.5	5	5	4	5	2,085	3.1	Yes	2	7	Yes	1.0	3.4	Yes
8	Midwest Orthopaedics at Rush University Medical Center, Chicago	76.4	5	5	1	4	2,835	1.8	Yes	2	7	Yes	1.0	5.5	Yes
9	Massachusetts General Hospital, Boston	75.8	5	3	3	5	3,566	2.6	Yes	2	7	Yes	1.0	4.9	Yes
10	North Shore University Hospital at Northwell Health, Manhasset, N.Y.	75.2	5	5	3	3	3,581	2.9	Yes	2	7	Yes	1.0	0.5	Yes
11	Mount Sinai Hospital, New York	74.5	5	5	3	3	2,250	2.4	Yes	2	7	Yes	1.0	0.8	Yes
12	New England Baptist Hospital, Boston	73.8	5	1	5	5	2,828	3.8	Yes	2	4	No	1.0	0.8	Yes
12	UCSF Health-UCSF Medical Center, San Francisco, Calif.	73.8	5	5	4	4	3,212	2.4	Yes	2	7	No	1.0	2.6	Yes
14	Queen's Medical Center, Honolulu	70.5	5	5	5	4	2,256	1.5	Yes	1	6	Yes	1.0	0	Yes
15	Cleveland Clinic	70.0	5	5	2	4	4,031	2.3	Yes	2	7	No	1.0	8.7	Yes
16	Houston Methodist Hospital	69.8	5	5	2	4	3,428	2.1	Yes	2	7	No	1.0	0.9	Yes
16	Scripps La Jolla Hospitals, La Jolla, Calif.	69.8	5	5	3	4	4,703	2.7	Yes	2	6	Yes	1.0	0.5	Yes
18	Hoag Orthopedic Institute, Irvine, Calif.	69.4	5	5	4	5	4,544	1.9	Yes	2	7	No	1.0	1	Yes
19	Northwestern Medicine-Northwestern Memorial Hospital, Chicago	68.4	5	5	4	4	2,118	2	Yes	2	7	Yes	1.0	2.5	Yes
20	Hospitals of the University of Pennsylvania-Penn Presbyterian, Philadelphia	67.6	5	2	3	4	2,773	2.8	Yes	2	7	Yes	1.0	3.2	Yes
21	Johns Hopkins Hospital, Baltimore	67.2	5	5	5	5	1,824	2.7	Yes	2	7	Yes	1.0	2.7	Yes
22	Duke University Hospital, Durham, N.C.	66.8	5	5	3	5	3,170	2.2	Yes	2	7	Yes	1.0	4.9	Yes
23	Providence Mission Hosp.-Mission Viejo and Laguna Beach, Mission Viejo, Calif.	66.6	5	5	2	4	2,299	2.4	Yes	2	7	Yes	1.0	0.4	Yes
24	University of Michigan Health-Ann Arbor	66.5	5	1	3	5	2,075	2.7	Yes	2	7	Yes	1.0	1.3	Yes
25	Brigham and Women's Hospital, Boston	66.4	5	1	3	4	3,163	2.3	Yes	2	7	Yes	1.0	2.9	Yes
26	Morristown Medical Center, Morristown, N.J.	65.9	5	3	4	4	3,842	1.9	Yes	2	7	Yes	1.0	0.7	Yes
27	Lehigh Valley Hospital-Cedar Crest, Allentown, Pa.	65.8	5	5	4	3	4,382	1.2	Yes	2	7	Yes	1.0	0.1	Yes
28	Mount Sinai Morningside and Mount Sinai West Hospitals, New York	65.4	5	1	5	3	2,296	2	Yes	2	7	Yes	0.0	0.2	Yes
29	Mayo Clinic-Jacksonville, Fla.	65.2	5	5	4	5	1,788	2.6	Yes	2	7	No	1.0	1.9	Yes
30	Florida Orthopaedic Institute at Tampa General Hospital	64.7	5	5	2	3	2,672	2.4	Yes	2	7	Yes	1.0	2.3	Yes
31	Mayo Clinic-Phoenix	64.5	5	5	4	5	1,778	2.3	Yes	2	7	No	1.0	2.1	Yes
32	Lenox Hill Hospital at Northwell Health, New York	63.9	5	5	3	3	2,115	3.7	Yes	2	7	No	1.0	1.1	Yes
33	Hackensack Univ. Med. Ctr. at Hackensack Meridian Health, Hackensack, N.J.	63.6	5	3	4	3	2,314	2.4	Yes	2	7	Yes	1.0	0.7	Yes
34	Long Island Jewish Medical Center at Northwell Health, New Hyde Park, N.Y.	63.2	5	3	4	3	2,473	1.9	Yes	2	7	Yes	1.0	0.5	Yes
34	Rothman Orthopaedics at Thomas Jefferson University Hospitals, Philadelphia	63.2	5	5	2	4	5,267	2.1	Yes	1	7	Yes	1.0	6.2	Yes
34	St. Francis Hospital and Heart Center, Roslyn, N.Y.	63.2	5	3	4	5	1,628	1.8	Yes	2	7	No	1.0	0.1	Yes
37	Barnes-Jewish Hospital, Saint Louis	62.4	4	5	4	4	4,092	2	Yes	2	7	Yes	1.0	3.7	Yes
38	Providence Saint John's Health Center, Santa Monica, Calif.	62.1	5	5	5	4	1,535	2.5	Yes	2	6	No	0.0	0.2	Yes
39	MemorialCare Long Beach Medical Center, Long Beach, Calif.	62.0	5	5	4	4	1,995	2.4	Yes	2	7	Yes	1.0	0.2	Yes
40	NorthShore University Health System-Metro Chicago	61.9	5	1	5	4	4,425	1.3	Yes	2	7	Yes	1.0	0.2	Yes
41	Beaumont Hospital-Royal Oak, Mich.	61.8	5	5	3	3	4,242	1.7	Yes	2	7	Yes	1.0	1	Yes
41	Beaumont Hospital-Troy, Mich.	61.8	5	3	3	4	3,665	1.6	Yes	2	7	Yes	1.0	0.2	Yes
43	Christ Hospital, Cincinnati	61.3	5	1	5	5	2,998	1.7	Yes	2	7	No	1.0	0.1	Yes
43	University of Kansas Hospital, Kansas City	61.3	5	5	2	5	2,296	2.1	Yes	2	7	Yes	1.0	0.3	Yes
45	Memorial Hermann-Texas Medical Center, Houston	61.0	4	5	4	4	3,589	2.4	Yes	2	7	Yes	1.0	0.6	Yes
46	Advocate Good Samaritan Hospital, Downers Grove, Ill.	60.9	5	1	4	4	1,612	2	Yes	2	7	Yes	1.0	0	Yes
46	Montefiore Medical Center, Bronx, N.Y.	60.9	5	2	2	3	1,961	2	Yes	2	7	Yes	0.0	0.6	Yes
48	MedStar Union Memorial Hospital, Baltimore	60.5	5	5	4	3	2,115	2.2	Yes	2	7	Yes	0.0	0.4	Yes
49	Advocate Good Shepherd Hospital, Barrington, Ill.	60.1	5	4	4	4	1,102	2	Yes	2	7	Yes	1.0	0	Yes
50	Penn State Health Milton S. Hershey Medical Center, Hershey, Pa.	59.5	5	5	2	4	2,014	2.1	Yes	2	7	Yes	1.0	0.7	Yes
50	UW Health University Hospital, Madison, Wis.	59.5	5	3	4	4	2,594	2.2	Yes	2	7	Yes	1.0	0.8	Yes

## Best Hospitals 2023-24: Pulmonology & Lung Surgery

Rank	Hospital	U.S. News Specialty Score	30-day survival	Discharging patients to home	Patient experience	Number of patients	Nurse staffing	Intensivists	Advanced technologies	Patient services	Trauma center	Recognized as Nurse Magnet hospital	Public transparency	Expert opinion	Current AHA responder
1	Mayo Clinic, Rochester, Minn.	100.0	5	5	5	8,133	3.1	Yes	6	8	Yes	1	1.0	15.4	Yes
2	Cedars-Sinai Medical Center, Los Angeles	98.8	5	5	4	9,843	2.9	Yes	6	8	Yes	1	1.0	3	Yes
3	NYU Langone Hospitals, New York	98.7	5	5	4	20,089	2.3	Yes	6	8	Yes	1	1.0	3.4	Yes
4	UCLA Medical Center, Los Angeles	97.9	5	5	5	6,854	3.1	Yes	6	8	Yes	1	1.0	5.5	Yes
5	Hospitals of the University of Pennsylvania-Penn Presbyterian, Philadelphia	96.2	5	5	4	7,010	2.8	Yes	6	8	Yes	1	1.0	7.5	Yes
6	National Jewish Health, Denver-University of Colorado Hospital	92.8	5	5	4	4,319	2.1	Yes	6	8	Yes	1	1.0	21.2	Yes
7	Stanford Health Care-Stanford Hospital, Stanford, Calif.	91.4	5	5	5	4,715	3.7	Yes	6	8	Yes	1	1.0	2.6	Yes
8	UCSF Health-UCSF Medical Center, San Francisco, Calif.	91.1	5	5	4	3,901	2.4	Yes	6	8	No	1	1.0	8.3	Yes
9	UC San Diego Health-La Jolla and Hillcrest Hospitals, San Diego	91.0	5	5	4	4,575	2.2	Yes	6	8	Yes	1	1.0	4.9	Yes
10	North Shore University Hospital at Northwell Health, Manhasset, N.Y.	90.7	5	5	3	10,926	2.9	Yes	5	8	Yes	1	0.0	1.2	Yes
11	Johns Hopkins Hospital, Baltimore	89.9	5	5	5	3,327	2.7	Yes	6	8	Yes	1	1.0	10	Yes
12	Mount Sinai Hospital, New York	89.7	5	5	3	8,855	2.4	Yes	6	8	Yes	1	1.0	2.9	Yes
13	Cleveland Clinic	89.3	5	5	4	6,132	2.3	Yes	6	8	No	1	1.0	12.5	Yes
14	New York-Presbyterian Hospital-Columbia and Cornell	89.1	5	5	4	19,556	3.0	Yes	6	8	Yes	1	1.0	5.5	Yes
15	Houston Methodist Hospital	88.6	5	5	4	8,524	2.1	Yes	6	8	No	1	1.0	0.8	Yes
16	UT Southwestern Medical Center, Dallas	87.0	5	5	5	4,973	2.4	Yes	6	8	No	1	1.0	1.9	Yes
17	Massachusetts General Hospital, Boston	86.4	5	5	5	7,958	2.6	Yes	6	8	Yes	1	1.0	6.5	Yes
18	Northwestern Medicine-Northwestern Memorial Hospital, Chicago	86.2	5	5	4	5,494	2.0	Yes	6	8	Yes	1	1.0	2.2	Yes
19	University of Michigan Health-Ann Arbor	85.5	5	5	5	5,361	2.7	Yes	6	8	Yes	1	1.0	5.4	Yes
20	Rush University Medical Center, Chicago	83.6	5	5	4	3,528	1.8	Yes	5	8	Yes	1	1.0	0.8	Yes
21	Mayo Clinic-Phoenix	83.5	5	5	5	4,648	2.3	Yes	5	8	No	1	1.0	2.3	Yes
22	Lenox Hill Hospital at Northwell Health, New York	82.3	5	5	3	5,246	3.7	Yes	5	8	No	1	1.0	1.6	Yes
23	Barnes-Jewish Hospital, Saint Louis	81.4	5	5	4	6,632	2.0	Yes	6	8	Yes	1	1.0	4	Yes
24	Hackensack Univ. Med. Ctr. at Hackensack Meridian Health, Hackensack, N.J.	80.4	5	5	3	7,553	2.4	Yes	5	8	Yes	1	1.0	0.2	Yes
25	Yale New Haven Hospital, New Haven, Conn.	80.2	5	5	3	11,850	2.1	Yes	5	8	Yes	1	1.0	2.6	Yes
26	Beaumont Hospital-Royal Oak, Mich.	80.0	5	5	3	9,498	1.7	Yes	5	8	Yes	1	1.0	0.2	Yes
27	UC Davis Medical Center, Sacramento, Calif.	79.5	5	5	4	3,847	2.8	Yes	5	8	Yes	1	1.0	0.8	Yes
28	Duke University Hospital, Durham, N.C.	77.7	5	5	5	5,579	2.2	Yes	6	8	Yes	1	1.0	6.3	Yes
28	Long Island Jewish Medical Center at Northwell Health, New Hyde Park, N.Y.	77.7	5	5	3	15,329	1.9	Yes	5	8	Yes	1	1.0	1.1	Yes
30	University of Chicago Medical Center	77.6	5	5	4	3,963	2.4	Yes	6	8	Yes	1	1.0	2.9	Yes
30	University of Kansas Hospital, Kansas City	77.6	5	5	5	5,384	2.1	Yes	6	8	Yes	1	1.0	0.4	Yes
32	Vanderbilt University Medical Center, Nashville, Tenn.	77.5	5	5	4	5,338	2.4	Yes	6	8	Yes	1	1.0	6.1	Yes
33	Baylor University Medical Center, Dallas	77.4	5	5	4	7,604	2.0	Yes	6	8	Yes	1	1.0	0.5	Yes
34	Mayo Clinic-Jacksonville, Fla.	77.2	5	5	5	3,535	2.6	Yes	6	8	No	1	1.0	2.2	Yes
35	UPMC Presbyterian Shadyside, Pittsburgh	76.6	5	5	4	7,236	2.4	Yes	6	8	Yes	1	1.0	3.7	Yes
36	Keck Medical Center of USC, Los Angeles	76.4	5	5	4	1,107	2.6	Yes	6	8	No	1	1.0	1.2	Yes
37	Ohio State University Wexner Medical Center, Columbus	76.2	5	5	4	7,901	2.1	Yes	6	8	Yes	1	1.0	2.1	Yes
38	Huntington Hospital at Northwell Health, Huntington, N.Y.	75.9	5	5	4	5,425	2.2	Yes	5	8	No	1	0.0	0.1	Yes
39	Advocate Christ Medical Center, Oak Lawn, Ill.	75.6	5	5	3	7,436	2.5	Yes	6	8	Yes	1	0.0	0.1	Yes
40	Thomas Jefferson Univ. Hosps.-Jane and Leonard Korman Respiratory Institute, Philadelphia	75.1	5	5	4	5,634	2.1	Yes	5	8	Yes	1	1.0	1.1	Yes
41	Brigham and Women's Hospital, Boston	75.0	5	5	4	5,962	2.3	Yes	6	8	Yes	1	0.0	5.6	Yes
41	Loma Linda University Medical Center, Loma Linda, Calif.	75.0	5	5	4	3,380	2.6	Yes	5	8	Yes	1	1.0	0.2	Yes
43	UF Health Shands Hospital, Gainesville, Fla.	74.9	5	5	4	7,813	2.0	Yes	6	8	Yes	1	1.0	1.2	Yes
44	Kaiser Permanente Anaheim and Irvine Medical Centers, Anaheim, Calif.	74.5	5	5	4	6,110	2.5	Yes	5	8	No	1	0.0	0.3	Yes
44	Morristown Medical Center, Morristown, N.J.	74.5	5	5	4	7,891	1.9	Yes	5	8	Yes	1	1.0	0.1	Yes
46	Advocate Lutheran General Hospital, Park Ridge, Ill.	74.4	5	5	3	6,978	1.8	Yes	5	8	Yes	1	0.0	0	Yes
47	John Muir Health-Walnut Creek Medical Center, Walnut Creek, Calif.	73.9	5	5	4	4,532	2.5	Yes	5	8	Yes	1	0.0	0	Yes
48	St. Francis Hospital and Heart Center, Roslyn, N.Y.	73.4	5	5	5	5,379	1.8	Yes	5	8	No	1	0.0	0.2	Yes
49	Northwestern Lake Forest Hospital, Lake Forest, Ill.	73.3	5	5	4	2,332	1.7	Yes	5	8	Yes	1	0.0	0.1	Yes
50	Queen's Medical Center, Honolulu	73.0	5	5	4	6,832	1.5	Yes	5	8	Yes	1	0.0	0	Yes

## Best Hospitals 2023-24: Rehabilitation

Rank	Hospital	U.S. News Specialty Score	Prevention of hospital readmission after discharge	Prevention of hospital readmission during rehabilitation	Discharging patients to home	Flu vaccination rate	Number of patients treated for stroke	Number of patients treated for traumatic brain injury	Number of Medicare patients treated for traumatic spinal cord injury	Number of patients treated for non-traumatic bra in injury	Number of patients treated for non-traumatic spinal cord injury	Number of patients treated for neurological conditions	Advanced technologies	Patient services	Designated as rehabilitation innovation center	CARF accreditation	Expert opinion	Current AHA responder
1	Shirley Ryan AbilityLab (formerly Rehabilitation Institute of Chicago), Chicago	100.0	93.8	94.9	64.3	91.6	829	234	217	287	244	258	7	16	1	0	25.1	1
2	Spaulding Rehabilitation Hospital, Charlestown, Mass.	95.1	94.1	95.9	59.7	99.6	651	122	101	204	179	118	7	16	1	1	17.5	1
3	Kessler Institute for Rehabilitation, West Orange, N.J.	86.2	93.6	95.1	65.4	93.9	1,661	246	139	571	258	345	7	16	1	1	11.2	1
4	TIRR Memorial Hermann, Houston	86.0	93.4	95.4	61.6	93.8	493	217	211	187	143	78	7	16	1	1	13.6	1
5	Rusk Rehabilitation at NYU Langone Hospitals, New York	79.6	93.9	96.6	66.2	98.7	282	53	13	115	55	106	7	16	1	1	8.2	1
6	MossRehab, Elkins Park, Pa.	79.3	94.1	95.6	67.5	95.6	944	208	89	158	161	113	7	16	1	1	5.4	1
7	UPMC Mercy, Pittsburgh	77.7	93.6	95.8	65.3	95.0	380.0	165.0	84.0	173	143	56	7	16	1	0	6.0	1
8	UW Medicine-University of Washington Medical Center, Seattle	77.4	93.8	96.2	65.0	92.5	93	16	16	67	35	16	7	16	1	1	12.1	1
9	Atrium Health Carolinas Rehabilitation, Charlotte, N.C.	75.6	93.3	96.9	68.9	90.2	706	88	91	274	217	116	7	16	0	1	3.4	1
10	Mary Free Bed Rehabilitation Hospital, Grand Rapids, Mich.	74.7	94.1	96.5	68.3	NR	540.0	108.0	82.0	186	134	134	7	16	1	1	1.5	1
11	Mayo Clinic, Rochester, Minn.	72.1	93.2	95.4	69.3	88.3	122	20	12	54	63	12	7	16	1	1	10.5	1
12	Shepherd Center, Atlanta	69.1											7	16	1	1	6.0	1
13	New York-Presbyterian Hospital-Columbia and Cornell	69.0	93.6	96.2	65.4	96.6	220	24	10	141	63	89	6	16	0	1	7.4	1
14	MedStar National Rehabilitation Hospital, Washington, D.C.	68.3	94.0	95.6	58.8	95.4	557	71	67	130	131	67	7	16	1	1	3.2	1
15	UT Southwestern Medical Center, Dallas	67.9	94.4	96.2	69.9	78.3	185	21	15	110	144	92	7	16	1	1	2.4	1
16	Craig Hospital, Englewood, Colo.	67.7											7	16	1	0	5.4	1
17	Brooks Rehabilitation Hospital, Jacksonville, Fla.	67.3	93.8	96.5	61.5	91.3	703	187	130	231	187	111	7	16	0	1	1.4	1
18	Mount Sinai Hospital, New York	66.9	93.8	96.1	61.8	43.2	186	55	64	74	86	55	7	16	1	1	4.6	1
19	University of Alabama at Birmingham Hospital	66.0	93.5	95.9	73.5	NR	180	74	44	105	107	43	7	16	1	0	1.3	1
19	WakeMed Raleigh Campus, Raleigh, N.C.	66.0	94.2	96.7	70.2	96.1	426	100	62	76	92	74	6	15	0	1	0.0	1
21	California Rehabilitation Institute, Los Angeles	65.0	93.0	95.9	68.4	97.1	546	130	35	598	242	418	7	16	0	1	1.0	1
22	Baylor Scott and White Institute for Rehabilitation-Dallas	64.6	92.7	95.7	68.7	96.0	275	75	100	95	114	188	7	16	1	1	1.5	1
23	Magee Rehabilitation Hospital-Jefferson Health, Philadelphia	64.2	93.9	95.2	69.1	84.3	280.0	44.0	129.0	86	140	35	7	16	0	1	3.1	1
24	Memorial Regional Hospital, Hollywood, Fla.	63.7	92.8	96.7	69.8	92.7	448	107	23	203	82	218	7	14	0	1	0.5	1
25	St. David's Medical Center, Austin	63.6	94.5	96.9	73.8	46.4	309	79	30	240	101	260	6	15	0	0	0.0	1
26	UW Medicine/Harborview Medical Center, Seattle	62.5	93.7	95.8	59.9	88.7	137	57	79	31	83	10	7	16	1	1	3.1	1
27	Ohio State University Wexner Medical Center, Columbus	61.6	93.3	95.2	60.7	89.3	166	76	23	90	86	54	7	16	1	1	4.5	1
27	University of Michigan Health-Ann Arbor	61.6	93.7	95.9	64.7	95.4	28	13	32	36	62	37	7	15	1	0	3.6	1
29	Lancaster Rehabilitation Hospital, Lancaster, Pa.	61.5	94.8	97.2	74.4	98.5	257	75	10	110	57	169	5	7	0	1	0.0	1
29	Sheltering Arms Institute, Richmond, Va.	61.5	93.3	95.6	71.1	84.3	504	146	91	167	116	328	4	12	1	0	0.5	1
31	Sarasota Memorial Hospital, Fla.	61.2	94.4	97.1	66.8	75.8	250	95	17	97	38	57	7	15	0	1	0.0	1
32	Burke Rehabilitation Hospital, White Plains, N.Y.	60.8	95.0	94.6	63.5	97.2	865	92	44	139	172	134	6	15	0	1	1.2	1
33	Sunnyview Rehabilitation Hospital, Schenectady, N.Y.	60.6	94.2	95.8	66.9	94.1	531	93	31	83	61	91	7	16	0	1	0.2	1
34	OhioHealth Rehabilitation Hospital, Columbus, Ohio	60.5	93.6	96.6	65.5	62.5	353	120	41	122	83	96	7	16	0	1	0.2	1
35	Northwestern Medicine Mananjoy Rehabilitation Hospital, Wheaton, Ill.	60.1	93.9	94.9	58.0	97.5	700	157	50	310	146	288	7	16	0	1	1.4	1
36	Moses H. Cone Memorial Hospital, Greensboro, N.C.	59.7	94.5	96.4	74.0	95.0	357	45	18	52	47	44	5	15	0	1	0.0	1
37	Barrow Neurological Institute, Phoenix	59.6	93.7	96.7	62.5	97.0	191	57	52	152	125	29	7	16	0	1	0.2	1
38	Cleveland Clinic Rehabilitation Hospital, Avon, Ohio	59.4	93.0	95.3	63.0	70.5	897	146	52	372	293	591	7	16	0	1	1.1	1
38	Rancho Los Amigos National Rehabilitation Center, Downey, Calif.	59.4	93.5	94.8	65.2	58.0	362	116	126	100	101	102	7	16	1	1	1.2	1
40	Legacy Good Samaritan Medical Center, Portland, Ore.	59.1	94.1	96.3	75.6	66.1	324	37	46	66	42	18	6	15	0	1	0.0	1
41	JFK Johnson Rehabilitation Institute at Hackensack Meridian Health-Edison, N.J.	58.8	94.0	95.0	53.3	97.3	640	144	36	144	73	49	7	16	0	1	3.4	1
42	Rehabilitation Institute of St. Louis	58.6	93.0	96.3	65.9	85.7	537	100	77	288	128	186	4	15	0	1	0.3	1
43	Johns Hopkins Hospital, Baltimore	58.5											7	16	0	1	3.2	1
43	Kaiser Permanente Vallejo Medical Center, Vallejo, Calif.	58.5	93.4	95.7	74.1	73.0	599	53	52	75	50	25	6	15	0	1	1.1	1
45	Lynn Rehabilitation Center at UHealth/Jackson Memorial Hospital, Miami	57.9	92.6	95.7	65.0	49.7	414	90	74	158	316	63	7	15	1	1	0.6	1
46	TriHealth Rehabilitation Hospital, Cincinnati	57.5	94.1	96.3	63.8	97.9	311	39	20	88	56	141	7	16	0	1	0.0	1
47	Craig H. Neilsen Rehabilitation Hospital, Salt Lake City	57.4	93.9	95.6	68.0	99.6	136	29	21	48	46	35	7	16	0	1	2.0	1
48	Banner Rehabilitation Hospital Phoenix	56.9	93.5	96.1	71.3	72.2	650	101	34	151	103	166	5	16	0	0	0.1	1
49	Keck Medical Center of USC, Los Angeles	56.8	93.1	96.6	71.7	100.0	30	10	0	49	59	105	7	16	1	0	0.2	1
50	MetroHealth Medical Center, Cleveland	56.7	92.8	95.7	57.6	96.8	225	74	85	65	86	38	7	16	1	1	1.6	1
50	Santa Clara Valley Medical Center, San Jose, Calif.	56.7	93.7	96.2	76.8	77.3	282	82	65	68	79	29	0	0	1	1	3.4	0

## Best Hospitals 2023-24: Urology

Rank	Hospital	U.S. News Specialty Score	30-day survival	Discharging patients to home	Prevention of outpatient procedural complications	Patient experience	Number of patients	Nurse staffing	Intensivists	Advanced technologies	Patient services	Trauma center	Recognized as Nurse Magnet hospital	Expert opinion	Current AHA responder
1	Memorial Sloan Kettering Cancer Center, New York	100.0	5	5	5	5	896	2.5	Yes	6	8	No	1.0	6.2	Yes
2	Cleveland Clinic	92.5	5	5	4	4	1,174	2.3	Yes	6	9	No	1.0	19.5	Yes
3	NYU Langone Hospitals, New York	91.6	5	5	4	4	1,140	2.3	Yes	6	9	Yes	1.0	5.6	Yes
4	Mayo Clinic, Rochester, Minn.	89.7	5	5	4	5	963	3.1	Yes	6	9	Yes	1.0	16.5	Yes
5	Cedars-Sinai Medical Center, Los Angeles	87.9	5	5	2	4	772	2.9	Yes	6	9	Yes	1.0	1	Yes
6	New York-Presbyterian Hospital-Columbia and Cornell	87.4	5	5	5	4	1,707	3	Yes	6	9	Yes	1.0	6.7	Yes
7	Johns Hopkins Hospital, Baltimore	86.5	5	5	4	5	687	2.7	Yes	6	9	Yes	1.0	11.4	Yes
8	University of Texas MD Anderson Cancer Center, Houston	85.3	5	5	3	5	1,112	2	Yes	6	9	No	1.0	5.1	Yes
9	Hosp. of the University of Pennsylvania-Penn Presbyterian, Philadelphia	84.8	5	5	5	4	940	2.8	Yes	6	9	Yes	1.0	3.1	Yes
10	UCLA Medical Center, Los Angeles	83.2	4	5	4	5	465	3.1	Yes	6	9	Yes	1.0	10.2	Yes
11	Northwestern Medicine-Northwestern Memorial Hospital, Chicago	83.1	5	5	4	4	967	2	Yes	6	9	Yes	1.0	3.7	Yes
12	UCSF Health-UCSF Medical Center, San Francisco, Calif.	82.2	5	5	4	4	585	2.4	Yes	6	9	No	1.0	8.9	Yes
13	Fox Chase Cancer Center, Philadelphia	81.9	5	5	5	4	503	2.8	Yes	6	9	No	1.0	0.7	Yes
14	Stanford Health Care-Stanford Hospital, Stanford, Calif.	80.8	5	4	4	5	497	3.7	Yes	6	9	Yes	1.0	2.4	Yes
15	Vanderbilt University Medical Center, Nashville, Tenn.	80.5	4	5	4	4	833	2.4	Yes	6	9	Yes	1.0	7.3	Yes
16	Houston Methodist Hospital	79.5	5	5	3	4	579	2.1	Yes	6	8	No	1.0	1.1	Yes
17	North Shore University Hospital at Northwell Health, Manhasset, N.Y.	79.2	5	5	5	3	529	2.9	Yes	6	9	Yes	1.0	0.6	Yes
18	Mount Sinai Hospital, New York	78.0	5	5	5	3	988	2.4	Yes	6	9	Yes	1.0	3.8	Yes
19	University of Michigan Health-Ann Arbor	77.9	4	5	4	5	715	2.7	Yes	6	9	Yes	1.0	7.7	Yes
20	Brigham and Women's Hospital, Boston	76.6	5	5	4	4	740	2.3	Yes	6	9	Yes	1.0	2.5	Yes
21	Keck Medical Center of USC, Los Angeles	76.3	5	5	4	4	959	2.6	Yes	6	9	No	1.0	5.2	Yes
22	Rush University Medical Center, Chicago	74.9	5	5	2	4	380	1.8	Yes	6	9	Yes	1.0	1.4	Yes
23	Duke University Hospital, Durham, N.C.	74.5	4	5	4	5	718	2.2	Yes	6	8	Yes	1.0	4.6	Yes
24	Ohio State University Wexner Medical Center, Columbus	73.5	5	2	3	4	746	2.1	Yes	6	9	Yes	1.0	2.1	Yes
25	UT Southwestern Medical Center, Dallas	72.8	4	5	3	5	1,048	2.4	Yes	6	9	No	1.0	4.3	Yes
26	Beaumont Hospital-Royal Oak, Mich.	72.6	5	5	3	3	498	1.7	Yes	6	9	Yes	1.0	1.8	Yes
27	Hackensack Univ. Med. Ctr. at Hackensack Meridian Health, Hackensack, N.J.	72.5	5	5	3	3	624	2.4	Yes	6	9	Yes	1.0	2.9	Yes
28	Lancaster General Hospital, Lancaster, Pa.	71.2	5	4	4	4	543	1.6	Yes	6	9	Yes	1.0	0	Yes
29	Baylor St. Luke's Medical Center, Houston	70.1	5	4	3	4	483	1.8	Yes	6	9	No	1.0	1.1	Yes
30	Jefferson Health-Thomas Jefferson University Hospitals, Philadelphia	69.9	4	4	4	4	579	2.1	Yes	6	9	Yes	1.0	1.9	Yes
30	Massachusetts General Hospital, Boston	69.9	3	5	4	5	913	2.6	Yes	6	9	Yes	1.0	3.3	Yes
32	UC San Diego Health-La Jolla and Hillcrest Hospitals, San Diego	69.1	4	4	2	4	464	2.2	Yes	6	9	Yes	1.0	2.5	Yes
33	UPMC Presbyterian Shadyside, Pittsburgh	68.9	3	5	3	4	1,078	2.4	Yes	6	9	Yes	1.0	1.9	Yes
34	Barnes-Jewish Hospital, Saint Louis	68.8	4	5	2	4	629	2	Yes	6	9	Yes	1.0	2	Yes
34	Froedtert Hospital and the Medical College of Wisconsin, Milwaukee	68.8	4	5	5	4	373	1.7	Yes	6	9	Yes	1.0	0.5	Yes
36	Emory University Hospital, Atlanta	68.6	4	5	2	5	560	2.4	Yes	6	9	No	1.0	1	Yes
37	Mayo Clinic-Phoenix	68.2	3	5	2	5	507	2.3	Yes	6	8	No	1.0	3.2	Yes
38	Lenox Hill Hospital at Northwell Health, New York	68.1	4	3	5	3	408	3.7	Yes	6	9	No	1.0	0.8	Yes
39	New York-Presbyterian Brooklyn Methodist Hospital, Brooklyn	68.0	5	5	4	3	268	1.2	Yes	6	9	Yes	0.0	0	Yes
40	UNC Hospitals, Chapel Hill, N.C.	67.4	4	3	3	4	545	1.7	Yes	6	9	Yes	1.0	2.1	Yes
41	Yale New Haven Hospital, New Haven, Conn.	67.2	4	5	5	3	901	2.1	Yes	6	9	Yes	1.0	0.9	Yes
42	Mayo Clinic-Jacksonville, Fla.	67.1	3	5	4	5	464	2.6	Yes	6	8	No	1.0	2.4	Yes
43	Main Line Health Lankenau Medical Center, Wynnewood, Pa.	66.9	5	3	4	4	221	1.8	Yes	6	9	Yes	1.0	0	Yes
43	Queen's Medical Center, Honolulu	66.9	4	4	2	4	758	1.5	Yes	6	8	Yes	1.0	0	Yes
45	Beth Israel Deaconess Medical Center, Boston	66.8	5	3	5	4	405	1.4	Yes	6	9	Yes	1.0	0.4	Yes
45	UW Medicine-University of Washington Medical Center, Seattle	66.8	3	3	5	4	680	2.1	Yes	6	9	No	1.0	3.3	Yes
47	Long Island Jewish Medical Center at Northwell Health, New Hyde Park, N.Y.	66.3	4	5	3	3	1,058	1.9	Yes	6	9	Yes	1.0	0.9	Yes
48	St. Francis Hospital and Heart Center, Roslyn, N.Y.	66.2	5	5	5	5	296	1.8	Yes	6	9	No	1.0	0.1	Yes
49	Tampa General Hospital	66.0	3	5	2	3	702	2.4	Yes	6	9	Yes	1.0	0.5	Yes
49	University of Chicago Medical Center	66.0	3	3	5	4	394	2.4	Yes	6	9	Yes	1.0	1.9	Yes



## **Appendix E**

# **2023-2024 Best Hospitals Rankings, Expert Opinion-Based Specialties**

## Best Hospitals 2023-2024: Ophthalmology

Rank	Hospital	Expert Opinion (%)
1	Bascom Palmer Eye Institute-University of Miami Hospital and Clinics, Miami	35.6
2	Wills Eye Hospital, Thomas Jefferson University Hospitals, Philadelphia	30.9
3	Wilmer Eye Institute, Johns Hopkins Hospital, Baltimore	22.3
4	Mass Eye and Ear, Massachusetts General Hospital, Boston	18.3
5	Stein and Doheny Eye Institutes, UCLA Medical Center, Los Angeles	15.9
6	University of Iowa Hospitals and Clinics, Iowa City	11.1
7	Duke University Hospital, Durham, N.C.	10.6
8	University of Michigan Health Kellogg Eye Center, Ann Arbor	7.5
9	UCSF Health-UCSF Medical Center, San Francisco, Calif.	5.8
10	John A. Moran Eye Center, University of Utah Hospitals and Clinics, Salt Lake City	5.5

### Best Hospitals 2023-2024: Psychiatry

<b>Rank</b>	<b>Hospital</b>	<b>Expert Opinion (%)</b>
1	McLean Hospital, Belmont, Mass.	14.6
2	Massachusetts General Hospital, Boston	13.6
3	New York-Presbyterian Hospital-Columbia and Cornell	11.7
4	Johns Hopkins Hospital, Baltimore	9.6
5	Resnick Neuropsychiatric Hospital at UCLA, Los Angeles	8.6
6	UCSF Health-UCSF Medical Center, San Francisco, Calif.	5.2
7	Menninger Clinic, Houston	5.0

### Best Hospitals 2023-2024: Rheumatology

Rank	Hospital	Expert Opinion (%)
1	Johns Hopkins Hospital, Baltimore	30.2
2	Hospital for Special Surgery, New York-Presbyterian University Hospital of Columbia and Cornell	20.5
3	Cleveland Clinic	20.2
4	Mayo Clinic, Rochester, Minn.	16.4
5	Brigham and Women's Hospital, Boston	15.3
6	Massachusetts General Hospital, Boston	12.5
7	UCSF Health-UCSF Medical Center, San Francisco, Calif.	10.8
8	NYU Langone Hospitals, New York	9.8
9	UCLA Medical Center, Los Angeles	7.9
10	University of Alabama at Birmingham Hospital	6.4
11	University of Michigan Health-Ann Arbor	5.1

## **Appendix F**

### **2023-2024 Best Hospitals Honor Roll**

## 2023-2024 Best Hospitals Honor Roll

Hospital (listed alphabetically)
Barnes-Jewish Hospital, Saint Louis
Brigham and Women's Hospital, Boston
Cedars-Sinai Medical Center, Los Angeles
Cleveland Clinic
Hospitals of the University of Pennsylvania-Penn Presbyterian, Philadelphia
Houston Methodist Hospital
Johns Hopkins Hospital, Baltimore
Massachusetts General Hospital, Boston
Mayo Clinic, Rochester, Minn.
Mount Sinai Hospital, New York
New York-Presbyterian Hospital-Columbia and Cornell
North Shore University Hospital at Northwell Health, Manhasset, N.Y.
Northwestern Medicine-Northwestern Memorial Hospital, Chicago
NYU Langone Hospitals, New York
Rush University Medical Center, Chicago
Stanford Health Care-Stanford Hospital, Stanford, Calif.
UCLA Medical Center, Los Angeles
UC San Diego Health-La Jolla and Hillcrest Hospitals, San Diego
UCSF Health-UCSF Medical Center, San Francisco, Calif.
University of Michigan Health-Ann Arbor
UT Southwestern Medical Center, Dallas
Vanderbilt University Medical Center, Nashville, Tenn.

