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World's Best Specialized Hospitals 2025 – Methodology

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1 Introduction

Hospitals play a crucial role in modern healthcare systems, providing a wide variety of medical services in different medical fields to ensure adequate medical care for the general population in the surrounding area. General hospitals are best suited to deliver care for patients with the most common diagnoses and illnesses; however, the more specialized hospitals become, the more they can treat increasingly complex and rare cases. These hospitals are often at the forefront of scientific development in their medical fields and excel in certain surgeries or procedures, thus incentivizing other hospitals or doctors to transfer their patients to these facilities to get the best treatment. Specialized hospitals which focus on a few or even just one area of expertise. On a health care system level, almost all developed countries trend towards more centralization of medical expertise in the hospital sector, ensuring more specialization and thus deeper know-how in particular medical fields.

For patients, the decision to choose the right hospital for their specific condition is often determined mainly by the hospital's reputation and expertise in the medical field they require, while the overall reputation of the hospital is only of secondary importance. However, many of the existing web-based portals, websites and news articles only compare on a broad hospital level, with data also only being reported on a hospital level (if at all). Most available resources also focus solely on one specific country.

Thus, the World's Best Specialized Hospitals 2025 ranking is a comprehensive resource for international rankings of specialized hospitals at the medical field level. The fifth edition **ranks the best hospitals in 12 medical fields across the world**.

The medical fields included are:

- Cardiac Surgery
- Cardiology
- Endocrinology
- Gastroenterology
- Neurology
- Neurosurgery
- Obstetrics & Gynecology
- Oncology
- Orthopedics
- Pediatrics

- Pulmonology
- Urology

The ranking features the top 300 hospitals for Cardiology and Oncology, the top 250 for Pediatrics, the top 150 for Cardiac Surgery, Endocrinology, Gastroenterology, Orthopedics, and Pulmonology, the top 125 for Neurology, Neurosurgery, and Urology and the top 100 for Obstetrics & Gynecology. While global top hospitals are represented in multiple medical fields, leading specialized hospitals which are highly renowned in one or two specific medical fields or treatments, are featured on the lists as well.

Hospitals which are not accessible to the public and/or are very small were excluded from the ranking to ensure a sufficient number of recommendations for inclusion in the final lists.

As the majority of internationally available hospital quality metrics are reported solely on an aggregated hospital level (e.g. infection rates) and the few available metrics on a specialty level are not comparable across countries (e.g. staffing ratios), the ranking is based mostly on peer recommendations for specific areas of expertise from a global survey of medical professionals.

Furthermore, as Patient Reported Outcome Measurements (PROMs) and the pursuit for patient centered care has become a key topic in health care systems worldwide, Statista and Newsweek once again surveyed leading hospitals around the world on their implementation and use of PROMs across different specialties and departments. Results of the survey allow for a patient outcome focused metric, which is comparable internationally (see Section 3.1 PROMs Implementation Score for further detail). Thus, results from the PROMs Implementation survey were factored into the scoring model for the third time.

To acknowledge the diverse specializations within the field of pediatrics, **standout specialties for awarded hospitals in the pediatrics list** are displayed for the second time. Participants were provided with the opportunity to select one standout medical field for each recommended/assessed hospital. The available standout medical fields for participants to choose from included: Cardiology, Cardiac Surgery, Endocrinology, Gastroenterology, Oncology, Orthopedics, Neurology, Neurosurgery, Neonatology, Pulmonology and Urology.

2 Notable changes

To keep in line with our goal to be more data driven, the following changes were implemented in this year's edition compared to the World's Best Specialized Hospitals 2024 ranking:

- Addition of accreditations and increase in weighting: Accreditations from The French National Authority for Health (HAS) for France, the Initiative Qualitätsmedizin (IQM) for Germany and Switzerland, the Korean Institute for Healthcare Accreditation (KOIHA) for South Korea, the Det Norske Veritas (DNV), the European Stroke Organization (ESO), the European Society of Cardiology (ESC), Deutschen Krebsgesellschaft (DKG) for Germany, Switzerland, and Austria, and The American College of Surgeons (ACS) for the USA have been added to the scoring model. Factoring in these new data points, the weighting of accreditations and certifications within the scoring model was increased.
- Increased PROMs implementation data weighting: This year the weighting for the data from the Statista PROMs implementation survey was increased from 2.5% to 3.5% within the scoring model to emphasize patient centered care.
 PROMs visibility: Within the publication, the visibility of PROMs has been increased by including checkmarks for hospitals who have participated, a single ribbon for hospitals meeting the threshold, and two ribbons for advanced PROMs implementation.
- Inclusion of previous year's recommendation data: To account for reputational continuity, recommendations from last year were factored into the reputation pillar.
- **Decrease in reputation weighting:** This year the weighting of the overall reputation pillar decreased as more emphasis is put on quality metric data.

3 Study Design

The following sections provide an overview of the study design and the underlying methodology used to determine the ranking. First, the general approach is outlined in chapter 3.1, followed by a description of the role of the global expert board in chapter 3.2 and the approach that was used to create the lists in the ten medical fields in chapter 3.3

3.1 Methodology

The study design of the "World's Best Specialized Hospital 2025" project is based on a global survey of tens of thousands of medical professionals (doctors, health care professionals and hospital managers).

The recommendation score is based on two sub-scores, primary recommendations and secondary recommendations. In cooperation with Newsweek, Statista invited tens of thousands medical experts (medical doctors, healthcare professionals, hospital managers and directors) in over 30 countries to an online survey. Additionally, experts from all over the world were able to participate in the survey for "World's Best Specialized Hospitals 2025" on newsweek.com. The data was collected by Newsweek and Statista during an initial survey period from May to July 2024.

Reputation Score

As outlined previously, participants in the survey were asked to recommend hospitals based on their expertise in one primary medical field (e.g. Cardiology for Cardiologists) with the option to select a secondary and tertiary area of expertise in which they are also knowledgeable (e.g. due to frequent cooperation with other medical fields). However, these secondary/tertiary recommendations were given a lower weight than primary recommendations (see 3.3 for scoring details). Regarding the survey for specialists in the field of pediatrics, participants were given the opportunity to select a standout medical field for each recommended hospital based on their perception of the hospital's specialized expertise.

The questionnaire did not suggest a list of recommended hospitals, therefore respondents were free to suggest any hospital they deemed recommendable (aided by an autocomplete function for convenience). Self-recommendations were not allowed. Statista performed plausibility checks on all data to prevent self-nomination.

To determine the final rankings, the answers were weighted accounting for two factors: a) working experience by profession, with primary recommendations from doctors in the relevant medical field receiving the highest weight e.g. Cardiologists for Cardiology) and b) the respondents' confidence in their vote (0-100%). Combined, the two survey parts resulted in over 29,000 individual hospital recommendations.

Finally, the combined data was analyzed and an overall reputation score (0-100%) was calculated for every hospital across all medical fields based on the total weighted

number of recommendations and the ranking score. The hospital with the highest number of weighted recommendations received a recommendation score of 100% while the next best hospitals received a score relative to their weighted number of recommendations, e.g. when hospital A received the most weighted recommendations with 100, hospital B with 80 weighted recommendations receives a score of "80" /"100" =80%".

The weighted peer recommendations were factored into the scoring model with 80% of the overall score. Furthermore, to account for the historical reputation perception of the hospitals, hospital recommendations from the previous year were factored into the scoring model with a 10% weight towards the overall score. Thus, the total reputation score accounts for 90% of the overall hospital score. Hospitals that specialize in more than one medical field received specific recommendation scores for each medical field based on the respective recommendations. Therefore, one hospital can be represented in more than one list if it receives enough recommendations in each medical field.

PROMs Implementation Score

Patient-reported Outcomes Measures (PROMs) are defined as standardized, validated questionnaires completed directly by patients to reflecting their perception of their health status. Health status is defined beyond simply surviving disease following treatment, but covers symptom burden, impact on functioning (physical, mental and social), and quality of life. In recent years, PROMs measurement and the pursuit for patient-centered and value-based care has become a key topic in health care systems worldwide.

With the guidance of the global board of experts, the Newsweek and Statista have updated the *PROMs implementation* survey for the 2024 ranking cycle. The survey was sent out to hospitals in fall/winter 2023 and participation was also possible on newsweek.com and r.statista.com.

The overall purpose of this survey is to determine the status quo of implementation

of generic and condition-specific PROMs in hospital settings as well as the hospital's efforts towards reporting and using the data both internally and externally for the purpose of improving health care delivery. For this, the global board of experts provided methodological input and guidance regarding the importance and development of the PROMs topic in a clinical setting. Furthermore, the board provided feedback on each of the questions within the survey to capture the most relevant PROMs information from the hospitals.

This year, Statista has partnered with the International Consortium for Health Outcomes Measurement (ICHOM) as a new knowledge partner. ICHOM is the world's leading nonprofit organization dedicated to transforming healthcare through the applied use of standardized patient-centered outcomes measurement. ICHOM convenes and empowers patient and clinical leaders to identify and standardize the most important clinical, quality of life, function and experience results for health care, and enables transparent, large-scale use by various stakeholders to achieve patient-centric health system transformation. By working with partners around the world, ICHOM builds evidence-based, patient co-created resources – the standardized sets of patient-centered outcomes measures – that help all actors in healthcare design, deliver and evaluate care based on outcomes that matter to patients. ICHOM sets cover a large variety of medical conditions and account for nearly 60% of the global burden of disease. They have been implemented in over 500 care settings across more than 42 countries. Drawing from their widely recognized expertise and experience in the field of clinical and patient-reported outcome measures, ICHOM is contributing to the future development of the PROMs implementation survey and to the wider advancement of value-based care worldwide.

More information about ICHOM is available at: www.ichom.org

An outline of the questions covered in the PROMs Implementation survey can be found below and the full questionnaire can be accessed via this <u>link</u>.

PROMs Questions¹:

- Designated team to measure PROMs (Yes/No)
- Collection of standardized PROMs (Yes/No)
- Number of standardized PROM instruments measured and the departments they are being measured for
- The condition and/or departments measuring PROMs, whether case-mix adjustment was taken into account, if the instruments are scientifically validated, and the percentage of patients that complete the PROMs questionnaire for each condition
- Internal reporting of PROMs data to clinicians. (Yes/No)
- Internal reporting of PROMs data to patients. (Yes/No)
- External reporting of PROMs results. (Yes/No)
- Auditing of the data prior to being published? (Internal/External/Both)

¹ In the questions pertaining to external reporting, optimization of care processes, therapeutic decisions, and sharing and comparing of PROMs data – examples were either listed or asked of participants if participants selected yes.

- Use of PROMs data to optimize care processes? (Yes/No)
- Use of PROMs data to support therapeutic decisions in real-time? (Yes/)
- Sharing and comparing of PROMs data with other institutions to learn from each other? (Yes/No)

Furthermore, in collaboration with the expert board, a grading system was developed to determine the PROMS Implementation score. The score is assessed on a range from 50 to 100%, meaning that only hospitals achieving a minimum of 50% (of the maximum 100% score) were eligible to be graded on the PROMs score curve (as shown in the scoring model in 2.3). The PROMS Implementation score accounts for 3.5% of the overall hospital score and was awarded to participating hospitals who marked the respective specialty within the PROMs survey. For example, if a hospital stated they measured PROMs for cardiology and oncology, then the overall PROMs score would only be factored into those specific rankings.

To further highlight PROMs implementation efforts of participating hospitals, ribbons indicating the level of excellence in this category are displayed in the following manner:

- $\circ~$ 1 ribbon: Hospital surpassed the minimum grading threshold of PROMs implementation
- o 2 ribbons: Hospital has an advanced level of PROMs implementation
- All other participating hospitals are displayed with a checkmark

The upcoming survey cycle, which will be valid for all hospital rankings published in 2025, will be announced on newsweek.com, r.statista.com and shared via e-mail with preregistered participants. Hospitals interested in participating in future cycles can pre-register through the provided link <u>here</u>.

By continuously improving the PROMs Implementation survey in collaboration with the expert board, Newsweek and Statista strive to drive PROMs implementation and promote patient-centered care on a global scale. The long-term goal is to establish this questionnaire as the leading measure for PROMs implementation on an international level. The ongoing participation and engagement of hospitals worldwide are crucial in achieving this shared vision of improving healthcare standards through the integration of patient-reported outcomes.

Accreditations/Certifications Score

Several accreditations/certifications have been factored into the scoring model (where available). Accreditations/certifications reflect a range of structural and/or quality requirements which are now relevant for the specialized rankings.

The following accreditations/certifications² from the following institutions were considered:

- o CARF International (Commission on Accreditation of Rehabilitation Facilities)
- DNV (Det Norske Veritas)
- ESO (European Stroke Organization)
- o IQM (Initiative Qualitätsmedizin)
- o JCI (Joint Commission International)
- TJC (The Joint Commission)
- HAS (French National Authority for Health)
- o KOIHA (Korean Institute for Healthcare Accreditation)
- FACT (Foundation for the Accreditation of Cellular Therapy)
- o ACS (The American College of Surgeons) quality programs
- DKG (Deutschen Krebsgesellschaft)
- ESC (European Society of Cardiology)

In addition to general hospital certifications, any available accreditations/certifications relevant to specific medical fields (e.g. Pediatric Specialty Program for Pediatrics, Brain Injury Specialty Program for Neurology) were also used.

The Accreditations/Certifications Score accounts for 6.5% of the overall hospital score.

3.2 Methodological input by the expert board

The following section outlines the function of the global board of experts which was founded by Statista to support the World's Best Specialized Hospital Project.

The idea behind the board of experts was to create an independent body that was tasked with the continuous development of the quality and scope of the project. The board of experts was tasked to provide input on possible improvements and expansions of the current questionnaires and methodology, most notably the PROMs Implementation survey. The members of the board of experts were carefully chosen based on their national

² Additional information about the accreditations/certifications are available here: <u>CARF International</u>, <u>DNV</u>, <u>ESO</u>, <u>IQM</u>, <u>JCI</u>, <u>TJC</u>, <u>HAS</u>, <u>KOIHA</u>, <u>FACT</u>, <u>ASC</u>, <u>DKG</u>, and <u>ESC</u>.

and international expertise and decade-long experience in their respective medical fields as well as their scientific output. Current members of the board of experts are:



3.3 Scoring Model

The scoring model is based on the reputation score, the accreditations/certification score, and the PROMs implementation score and uses different weights for the individual components as shown in this overview:



As shown above, primary recommendations from experts in each medical field account for 70% of each hospital's reputation score. Secondary and tertiary recommendations from medical professionals with knowledge in more than one medical field received a weight of 30% towards the reputation score. The total reputation score accounts for 80%, the previous year's recommendations account for 10%, the accreditations/certifications account for 6.5% and the PROMs implementation survey score accounts for 3.5% of the overall hospital score.

Based on the overall hospital score, hospitals are ranked top to bottom in lists for each medical field. The results of this ranking are displayed in the lists published by Newsweek.

4 Disclaimer

The rankings are comprised exclusively of hospitals that are eligible regarding the scope described in this document. A mention in the ranking is a positive recognition based on peer recommendations and publicly available data sources at the time. The ranking is the result of an elaborate process which, due to the interval of data-collection and analysis, is a reflection of the last calendar year. Furthermore, events preceding or following the period 07/08/2023-06/08/2024 and/or pertaining to individual persons affiliated/associated to the facilities were not included in the metrics. As such, the results of this ranking should not be used as the sole source of information for future deliberations.

The information provided in this ranking should be considered in conjunction with other available information about hospitals or, if possible, accompanied by a visit to a facility. Please note that data are subject to change and may be affected by continuing differences among states in abortion laws. The quality of hospitals that are not included in the rankings is not disputed.