#### **METHODOLOGY**

America's Best Neurological Hospitals 2024







## Methodology – America's Best Neurological Hospitals 2024

#### Summary of the project

- The U.S. population is aging and as a result, the burden of neurological disorders is increasing<sup>(1)</sup>. Thus, seeking the best possible care, the choice of a neurology hospital is crucial in the treatment process.
- To provide patients and family members with a comprehensive resource for informed decision making, Statista and Newsweek have partnered to award the leading neurology hospitals in the U.S.
- The **America's Best Neurological Hospitals 2024** ranking awards the 175 leading hospitals in the field of **neurological care** in the U.S., as well as highlighting the notable conditions & surgeries.
- The underlying data analysis is based on four data sources:
  - 1. Nationwide online survey: Health care professionals and hospital managers with knowledge about neurology e.g., neurologists, neurosurgeons, and neuroscience nurses were asked to recommend leading neurology hospitals in the U.S. The survey was also promoted on newsweek.com
  - 2. Hospital quality metrics: Hospital quality metrics with a focus on indicators relevant to neurological care were considered.
  - 3. Results from patient experience surveys
  - 4. Statista PROMs implementation survey
- Hospitals with a 1-star rating from CMS were not eligible for the ranking.

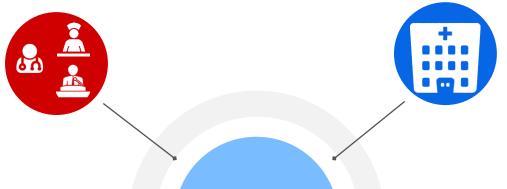


## Four data sources were evaluated to identify leading neurology hospitals

Ranking process and scoring model



Online survey of thousands of health care professionals and hospitals managers in the U.S. with knowledge about neurological care



## 2 Hospital quality metrics

Data on: Infection prevention, vaccination rates, timely and effective care, readmissions, mortality, accreditations and certifications relevant to the field

## PROMs implementation

Statista online survey on implementation and use of PROMs in hospitals (optional)

BEST NEUROLOGICAL HOSPITALS

## **3** Patient experience

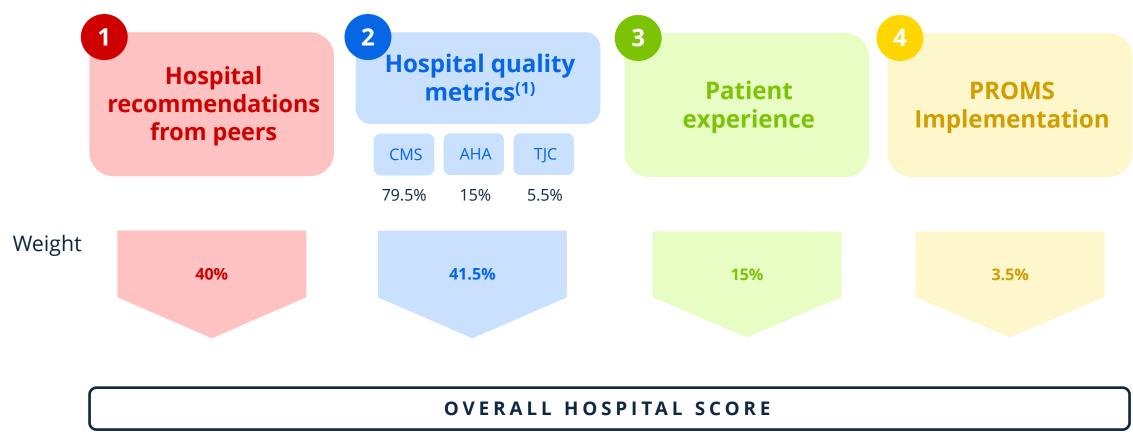
Survey of patient experience during hospitalization





## A score was calculated for each hospital

Scoring model



## Medical experts with knowledge about neurological care were invited to the survey

From April to May 2024, Statista invited thousands of of health care professionals with knowledge about neurology hospitals to an online survey





## **Hospital recommendations from peers**











Nationwide online survey among health care professionals with knowledge about neurology and hospital managers. Participants were invited via e-mail.

Participants were asked to recommend **neurology hospitals** and to rate them on a scale of 1-10 in the areas of: Provision of care and patient safety, patient education and counseling, neurological rehabilitation, overall nurse staffing and technical equipment. Recommendations for own employer / hospital were not allowed.

The assessments and recommendations were used to determine the **reputation score**. Additionally, participants could recommend the hospital for notable conditions & surgeries:

- Alzheimer
- Multiple Sclerosis
- Parkinson's disease
  - Epilepsy
- Neurological infections (e.g., Meningitis)
  - Brain tumor surgery
    - Spinal fusion

#### SCORE FOR REPUTATION



## Publicly available data on neurological hospitals was analyzed

Methodology: Hospital quality metrics - Part 1



## **Hospital quality metrics**

- Hospital quality metrics relevant to neurological care from a variety of public sources were collected<sup>(1,2)</sup>. Hospitals with a 1-star rating from CMS were not eligible for the ranking.
- Medicare and Medicaid Services (CMS) data was available for:
  - Timely and effective care (e.g. head CT results)
  - Imaging (e.g. MRI Lumbar Spine for Low Back Pain)
  - Readmissions (e.g. Rate of readmission after discharge from hospital)
  - Mortality (e.g. postoperative sepsis rate)
  - Infection Prevention and vaccination rate of staff
  - Patient Satisfaction

- The Joint Commission (TJC) data was available for:
  - Hospital Accreditations
  - Advanced Certifications:
    - Acute Stroke Ready Hospital
    - Advanced Certification Spine Surgery
    - Advanced Comprehensive Stroke Center
    - Primary Stroke Center
    - Thrombectomy Capable Stroke Center

#### SCORE FOR HOSPITAL QUALITY METRICS



## Publicly available data on neurology hospitals was analyzed

Methodology: Hospital quality metrics - Part 2



### **Hospital quality metrics**

- The AHA Annual Survey of Hospitals Database has been included in the scoring model. The database contains data provided by more than 6,200 hospitals and 400 health care system and features over 1,300 hospital data points(1). For America's Best Neurology Hospitals structural and organizational data of hospital facilities was used to be included in the hospital quality metrics score.
- Following indicator groups of the AHA **Annual Survey of Hospitals Database 2022** (2) were used to be part of the quality metrics score (3,4):

#### **General indicators**

- Health research & screening
- Trauma center
- Workforce strategic planning
- Technological equipment

#### **Neurology specific indicators**

- Neurological services
- Pain management
- Telehealth stroke care
- Neurology-specific technological equipment

#### **Health equity**

- Health equity goals
- · DEI disaggregated data
- · Health equity strategic plan

#### SCORE FOR HOSPITAL QUALITY METRICS



# Publicly available patient experience data on neurological hospitals was analyzed

Methodology: Patient experience data



## **Patient experience**

- Publicly available data from hospital patient surveys was used to analyze patient experience(1)
- Survey topics associated to patient care:
  - Cleanliness of the hospital
  - Communication of the nurses/doctors
  - Care transition
  - Communication about medicines
  - Discharge information
  - Quietness
  - Staff responsiveness

#### SCORE FOR PATIENT EXPERIENCE



## The optional Statista PROMs implementation survey collects data directly from hospitals

Methodology: Statista PROMs implementation survey





## **Statista PROMs implementation survey**

- Since 2023, a **PROMs implementation score** has been included in the scoring model of the World's Best Hospitals project.
- Patient Reported Outcome Measures (PROMs) are defined as standardized, validated questionnaires completed by patients to measure their perception of their functional well-being and quality of life.
- **Survey cycle:** In fall/winter of 2023, Newsweek and Statista conducted the **voluntary PROMs implementation survey** to determine the status quo of PROMs implementation, audits and reporting of the data, and whether the PROMs data is used to optimize care process and support therapeutic decisions in real-time.
- This year, Statista has partnered with the **International Consortium for Health Outcomes Measurement** (ICHOM, <u>www.ichom.org</u>) as a knowledge partner. ICHOM is the world's leading non-profit organization dedicated to development of standardized measurement of patient-important outcomes (including PROMs) as a basis for driving value-based health care. ICHOM is contributing to the future development of the PROMs implementation survey, in a manner that can drive not only measurement but use of the data from PROMs (and other patient-important outcomes) to advance value based healthcare.
- A **grading system** for the different questions was built to determine a **PROMs implementation score** for each participating hospital. Only hospitals which achieved a minimum of 50% (of the maximum 100% score) were eligible to be graded and received a maximum of up to 3.5% towards the total score.
- Future survey cycles will be announced on <u>r.statista.com</u>, <u>newsweek.com</u> and via e-mail to registered participants. Registrations can be submitted to: <u>hospitals@statista.com</u>.

#### SCORE FOR PROMS IMPLEMENTATION



## As a result, the 175 best neurological hospitals in the U.S. were awarded

Rank	Hospital	City	State	Notable Condition/Surgery
1	Mayo Clinic - Rochester	Rochester	MN	Brain tumor surgery, Epilepsy, Multiple sclerosis, Neurological infections (e.g., Meningitis), Parkinson`s disease, Spinal fusion
2	Massachusetts General Hospital	Boston	MA	Brain tumor surgery, Epilepsy, Neurological infections (e.g., Meningitis), Parkinson`s disease, Spinal fusion
3	NYU Langone Hospitals	New York	NY	Epilepsy, Parkinson`s disease
4	UCLA Health – Ronald Reagan Medical Center	Los Angeles	CA	Brain tumor surgery, Epilepsy, Multiple sclerosis
5	UCSF Medical Center	San Francisco	CA	Brain tumor surgery, Epilepsy, Multiple sclerosis, Neurological infections (e.g., Meningitis), Parkinson`s disease, Spinal fusion

[...]

#### 175 LEADING NEUROLOGICAL HOSPITALS WERE AWARDED



## World's Best Hospitals partner network

Overview of involved parties

#### Newsweek

#### **About Newsweek**

Newsweek is a premier news magazine and website that has been bringing high-quality journalism to readers around the globe for over 80 years.

Newsweek provides the latest news, indepth analysis and ideas about international issues, technology, business, culture and politics. In addition to its online and mobile presence, Newsweek publishes weekly English print editions in the United States, Europe/Middle East/Africa and Asia as well as editions in Japanese, Korean, Polish, Serbian and Spanish.

newsweek.com



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## **ICHOM**

#### **About ICHOM**

The International Consortium for Health Outcomes Measurement (ICHOM, <u>www.ichom.org</u>) is the leading non-profit dedicated to transforming healthcare by focusing on what truly matters to patients. They accomplish this by empowering patient and clinical leaders to standardize important clinical, quality of life, function and experience results for health care, and enabling transparent large-scale use to achieve patientcentric health system transformation. ICHOM's standardized 'sets' of patient-centred outcomes measures help all actors in healthcare design, deliver and evaluate care based on outcomes that matter to patients. To date, ICHOM has developed 45 outcome measure sets for conditions. The sets are available in ITready interoperable formats and have been implemented in 500+ care settings in 42+ countries.



### Disclaimer

The rankings are comprised exclusively of hospitals that are eligible regarding the scope described in this document. 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 12 months. Furthermore, events preceding or following the period June 19, 2023 – June 19, 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. The quality of hospitals that are not included in the rankings is not disputed.



## Appendix

#### Specific 2022 AHA Annual Survey indicators used

1. Total hospital beds (calculated)*	17. Health equity strategic planning - equitable and inclusive organizational policies
2. Certified trauma center - hospital	18. Health equity strategic planning - systematic and shared accountability for health equity
3. Level of trauma center	19. Health equity strategic planning - diverse representation in hospital and health care system leadership
4. Hospital owns trauma certification	20. Health equity strategic planning - diverse representation in hospital and health care system governance
5. Health research – hospital	21. Neurological services – hospital
6. Health screenings - hospital	22. Pain management program – hospital
7. Incorporating workforce as part of strategic planning - conduct needs assessment	23. Telehealth stroke care - hospital
8. Incorporating workforce as part of strategic planning - talent development plan	24. Single photon emission computerized tomography (SPECT) - hospital
9. Incorporating workforce as part of strategic planning - recruitment & retention planning	25. Intraoperative magnetic resonance imaging - hospital
10. Accountable for meeting health equity goals – CEO	26. Magnetoencephalography (MEG) – hospital
11. Accountable for meeting health equity goals - designated senior executive	27. Magnetic resonance imaging (MRI) – hospital
12. Accountable for meeting health equity goals - committee or task force	28. Computed Tomography (CT) scanner - hospital
13. Accountable for meeting health equity goals - division/department leaders	29. Positron emission tomography (PET) - hospital
14. DEI disaggregated data to inform decisions - patient outcomes	30. Positron emission tomography/CT (PET/CT) - hospital
15. DEI disaggregated data to inform decisions – training	31. Ultrasound - hospital
16. DEI disaggregated data to inform decisions - professional development	

