

IBM Watson Health Names Northwestern Memorial Hospital One of the Top 50 Cardiovascular Hospitals in the United States

When compared with other U.S. acute care hospitals providing cardiovascular care that were included in this study, the Watson Health 50 Top Cardiovascular Hospitals consistently outperformed on clinical outcomes, efficiency, and 30-day readmissions, providing higher quality at a lower cost.

"The winning hospitals in our study have established the new benchmark for cardiac care performance by driving consistently better outcomes at a lower cost per case than non-winning hospitals." Ekta Punwani

Higher Inpatient Survival Rates: Winning hospitals had significantly higher inpatient survival rates (27.7 to 46.8% higher).

Fewer Complications: The 50 Top Cardiovascular Hospitals achieved 16.1 to 24.2 percent fewer patient complications.

Shorter Length of Stay: Average length-stay for coronary artery bypass graft (CABG) patients was nearly one day lower (0.8 and 0.4 days lower for acute myocardial infarction (AMI), heart failure (HF) and percutaneous coronary intervention (PCI) in winning hospitals.

Lower Cost: Winning hospitals delivered care for an average of \$7,812 less per bypass surgery and \$1,635 to \$3,582 less for HF, AMI, and PCI inpatient stays; as well as demonstrating lower average 30-day episode of care payments for AMI and HF (\$1,208 and \$883, respectively).

Lower Readmission Rates: Readmission rates for AMI and CABG were 0.6, and HF 0.7 percentage points lower in winning hospitals than non-winning hospitals.

There are 15 teaching hospitals with cardiovascular residency programs (In alphabetical order)

Duke Regional Hospital, Lahey Hospital & Medical Center, Maimonides Medical Center, Mayo Clinic Hospital, Saint Marys Campus, McLaren Macomb Hospital, New York-Presbyterian Brooklyn, Methodist Hospital, New York-Presbyterian Queens Hospital, NorthShore University Health System, **Northwestern Memorial Hospital**, Ohio Health Riverside Methodist Hospital, Rhode Island Hospital, Southside Hospital, St. Vincent Indianapolis Hospital, Tulane Medical Center, Wake Forest Baptist Medical Center (Winston-Salem, N.C.).

There are teaching hospitals without cardiovascular residency programs

Aspirus Wausau Hospital, Centra Health, Central Maine Medical Center, Cone Health, Decatur (Ill.) Memorial Hospital, Grand Strand Medical Center, Holston Valley Medical Center, HealthPark Medical Center, MacNeal Hospital, Mission Hospital, PIH Health Hospital-Whittier, Sacred Heart Hospital, Saint Thomas West Hospital, St. Joseph Mercy Hospital, St. Luke's Boise Medical Center.

The remaining 20 hospitals on the list are Community hospitals

To determine the 50 top U.S. hospitals for heart care, IBM Watson Health researchers analyzed 2016 and 2017 Medicare Provider Analysis and Review (MedPAR) data, 2017 Medicare cost reports (2016 if 2017 reports were not available) and Centers for Medicare & Medicaid Services (CMS) Hospital Compare published in the second quarter of 2018. Hospitals were scored in key value-based performance areas: risk-adjusted mortality, risk-adjusted complications, percentage of coronary bypass patients with internal mammary artery use, 30-day mortality rates, 30-day readmission rates, severity-adjusted average length of stay, wage- and severity-adjusted average cost per case and, new this year, CMS 30-day episode payment measures.

2018 Highlights at Northwestern Medicine

Breakthrough Clinical Care

The National Cancer Institute Rates Northwestern Medicine As One of the Top Rated Cancer Programs Nationwide

Northwestern Medicine is proud to announce that Robert H. Lurie Comprehensive Cancer Center of Northwestern University has received the highest rating of “Exceptional” from the National Cancer Institute. Lurie received a near-perfect impact score of 12. Numerical scores are assigned on a scale from 10 to 90, with 10 being a perfect score.

We are now positioned among an elite group of cancer centers in the country and poised for the next phase of growth. We look forward to expanding our capabilities and intensifying our efforts to defeat cancer as a disease,” said Leonidas C. Platanius, MD, PhD, Director of the Robert H. Lurie Comprehensive Cancer Center.

Lurie Comprehensive Cancer Center will receive nearly \$31.5 million in funding from the NCI, a dramatic 36 percent increase. “We will further enhance our translational capabilities in cancer immunotherapy, epigenetics and metabolomics across Northwestern,” said Dr. Platanius. “We are also expanding our precision medicine capabilities and cutting-edge clinical trials across the rapidly growing Northwestern Medicine network.”



*Leonidas C. Platanius, MD, PhD,
Director of the Robert H. Lurie
Comprehensive Cancer Center*

Northwestern Medicine’s Institutional Decision to Adopt Y90 as Primary Treatment for Hepatocellular Carcinoma Informed by a 1,000-Patient 15-Year Experience

Dr. Riad Salem, Chief, Section of Vascular and Interventional Radiology, announced that a seminal landmark study was published in HEPATOLOGY, VOL.,00, NO. 00, 2017 showing that Northwestern Medicine has such high success rates with Y90 that it has become the Standard of Care-Primary Treatment for patients with Hepatocellular Carcinoma, the most common primary liver cancer, representing the second-most common cause of cancer mortality worldwide, informed by a 1,000-Patient 15-Year Experience.

Yttrium-90 transarterial radioembolization (TARE) is a locoregional therapy (LRT) for hepatocellular carcinoma (HCC). In the study, we presented overall survival (OS) outcomes in a 1,000-patient cohort acquired over a 15-year period.

The conclusion of the study is that based on our experience we have made a decision to adopt TARE as the first-line transarterial LRT for patients with HCC. Our decision was informed by prospective data and incrementally reported demonstrating outcomes stratified by Barcelona Clinic Liver Cancer (BCLC), applied as either neoadjuvant or definitive treatment.

\$25 Million Gift will Help Northwestern Medicine Develop “A First-of-its-Kind” Center that Uses Artificial Intelligence to Treat Heart Disease

The \$25 million donation will help fund “a first-of-its-kind” center that utilizes artificial intelligence and machine learning to advance the study and treatment of cardiovascular disease. Cardiovascular disease remains the number one killer of Americans,” Dr. Patrick McCarthy, executive director of the Northwestern Medicine Bluhm Institute and Chief of Cardiac Surgery, said in a news release. “Artificial intelligence offers an abundance of new ways to research and treat this pernicious rise. Since creating the institute, Northwestern Medicine’s cardiology and heart surgery program went from unranked to top ten in the annual U.S. News & World Report hospital rankings. At the same time, the number of cardiac surgeries performed at the hospital have increased fourfold.

2018 Highlights at Northwestern Medicine Cutting Edge Research

Prostate Cancer Therapy Improves Outcomes for Patients with Castrate-Resistant Prostate Cancer by 71%

Patients with non-metastatic castration-resistant prostate cancer (CRPC) who were treated with enzalutamide plus androgen deprivation therapy (ADT) had significantly improved metastasis-free survival compared with those treated with ADT only according to final results from a multinational, randomized Phase III clinical trial. The results show that the use of enzalutamide and ADT reduced the risk of developing metastases or death by 71 percent compared to ADT alone. The data will be presented at the 2018 Genitourinary Cancers Symposium in San Francisco, February 8-10 by lead investigator Maha Hussain, MD, Deputy Director of the Robert H. Lurie Comprehensive Cancer Center of Northwestern University.



*Dr. Maha H. Hussain, Deputy
Director of the Robert H. Lurie
Comprehensive Cancer*

Richard Burt received The Van Bekkum Award, The Most Prestigious European Society For Blood Marrow Transplantation (EBMT) Award For The Best Abstract Submitted To The Physician's Programme.

In 2006, Dr. Richard Burt from Northwestern Medicine was recognized by Scientific American along with Al Gore and Steve Jobs as one of the top 50 people in the world for improving humanity due to his pioneering stem cell work. In 2011, Science Illustrated recognized Dr. Burt's stem cell work as one of the top 10 advances of the decade. In January 2016, the magazine The Economist recognized Dr. Burt's work by concluding: "This work (hematopoietic stem cell transplant for multiple sclerosis) should give drug companies some pause for thought."

In 2018, Dr. Burt concluded his Phase 3 Randomized Trial: Autologous hematopoietic stem cell transplantation for relapsing-remitting Multiple Sclerosis (MS.) It is the world's first randomized trial completed. Results show disability reversal and improved quality of life. (Publication pending)



*Dr. Richard Burt, Chief of the Division
of Immunotherapy and Autoimmune
Disease*

Northwestern Medicine Keeps Its Eye on Cancer

Where Cancer Lurks: Vadim Backman has Developed a Strategy for Detecting Cancer in its Earliest Stage

On the outer edge of the color spectrum of visible light lies a mysterious place on the far side of violet. As red morphs to orange and then fades to yellow and so on, the wavelengths become shorter and shorter. Until finally — concealed by the diffraction limit — there is a wavelength so short that it cannot be viewed by common optical microscopes. But this is exactly the hidden place where Vadim Backman M.S., Ph.D. believed he might find the secrets of life.

In the face of great doubt, Backman teamed with Allen Taflove, M.S., Ph.D. from the Department of Electrical Engineering and Computer Science of Northwestern's McCormick School of Engineering to develop partial wave spectroscopy (PWS) nanocytology, a new technology that not only views cells at these elusive length scales but also uncovers the shrouded malignancies that Backman hypothesized.

“Cancer is a terrible way to die, and it is a traumatic experience for the patient’s family,” says Backman, the Walter Dill Scott Professor of Biomedical Engineering in Northwestern’s McCormick School of Engineering. “I knew that I had to at least try to address this question, because it could end up saving a life.”

Backman’s early detection technique could soon be available for physicians to use with their patients. Several large clinical trials are already in progress, and within three years tests for lung, colon and prostate cancer — which are among the most common types — should enter the market. Much like the Pap test, these new screens could become part of regular primary care, putting physicians one step ahead of cancer — poised to prevent it from getting out of control and untreatable. Backman believes this cancer treatment could be his most important research yet. As his diagnostics near implementation in the hospital, he has shifted his focus to pursuing chromatin-protection therapeutics.



Message from Dr. Daniel Derman

*President, Northwestern International Patient Services
Chief Innovation Officer and Sr. Vice President, Northwestern
Memorial Healthcare*

2018 has been quite a year at Northwestern Medicine. Our guiding ideal is always to put our Patients First, and we seek to do this with our breakthrough clinical care, cutting-edge research, and world-class service and patient experience. As the Chief Innovation Officer for Northwestern Medicine, I am very pleased to see how committed we are as an organization to this priority. This year we are also very grateful that leading organizations in the healthcare arena have recognized our extraordinary outcomes and quality care as well.

This year Northwestern Medicine was ranked as one of the leading Cardiovascular Hospitals in the United States by the IBM Watson health researchers who analyzed large sums of data from such sources as the Centers for Medicare & Medicaid Services (CMS). The IBM ratings are based on factual data versus some of the other popular ratings which take softer more qualitative factors into consideration. When the non-factual data is stripped away and outcomes are the pure focus, Northwestern Medicine is ranked as one of the leading hospitals in the nation for cardiovascular care for higher inpatient survival rates, fewer complications, shorter length of stay, lower costs and lower readmission rates.

Northwestern Medicine also received the highest possible rating from the National Cancer Institute this year placing Northwestern in the top rated Comprehensive Cancer Centers nationwide. We were honored to receive such accolations, and it reinforces our belief that putting our Patients First will always keep us on track for excellence.

I welcome you to reach out to me and/or Laura (Leahy) Jaros, Senior Practice Manager at Northwestern International with any thoughts and insights that will help us provide the best support and treatment for your patients. May you have a Happy New Year!