

SUPPLEMENT

The US is Open Again for International Patients

Vaccinated Medical Travellers Welcome



United States Hospitals – a Supplement to Middle East Health

A New Hospital for More Healing

Over a decade of visionary planning and design culminated in the completion of the new Stanford Hospital in 2019. Located on the campus of Stanford University, where life-changing interdisciplinary discoveries and breakthroughs from Stanford Medicine are continuously translated into patient care, this stunning facility sets a new global standard of care.







contents



UNITED STATES HOSPITALS

- 2 The United States is open for international patients
- 4 Mayo Clinic again ranked No. 1 hospital in the USA
- 5 Stanford Medicine: World-class care within reach
- 6 Children's Hospital of Pittsburgh: Autologous stem cell transplantation for treatment-resistant juvenile-onset systemic sclerosis
- 8 Atrium Health introduces the world's first AI tool for predicting surgery outcomes
- 10 Baptist Health International: International brain tumor patient heads home after treatment at Miami Cancer Institute
- 12 Baylor St. Luke's Medical Centre: Breast cancer what you need to know about treatment options
- 14 Quality, compassionate care at the heart of NewYork-Presbyterian
- 16 Northwestern Medicine: World class healthcare, world class destination





Publisher

Michael Hurst Michael@MiddleEastHealth.com

Editor

Callan Emery editor@MiddleEastHealth.com

Editorial Consultants

Dr Gamal Hammad, Dr Peter Moore, Harry Brewer

Middle East Editorial Office

PO Box 72280, Dubai, UAE Telephone: (+9714) 391 4775 editor@MiddleEastHealth.com

Marketing Manager

Foehn Sarkar

Telephone: (+9714) 391 4775 ■ Fax: (+9714) 391 4888 marketing@MiddleEastHealth.com

Subscription & Admin Manager

Savita Kapoor

Telephone: (+9714) 391 4775 ■ Fax: (+9714) 391 4888 Savita@MiddleEastHealth.com

Advertising Sales

PO Box 72280, Dubai, UAE marketing@MiddleEastHealth.com

Americas, France

Joy Sarkar P O Box 72280, Building No.2 2nd Floor, Dubai Media City Dubai, United Arab Emirates Tel: +971 4 391 4775 Fax: +971 4 391 4888

Joy@MiddleEastHealth.com Japan

China

Miss Li Ying
Medic Time Development Ltd,
Flat 1907, Tower A, Haisong Building, Tairan 9th Road,
Futian District, Shenzhen, China 518048
Tel: +86-755-239 812 21 ■ Fax: +86-755-239 812 33
Email: medic8@medictime.com

Taiwan

Talwall Larry Wang
Olympia Global Co Ltd
7F, No.35, Sec 3, Shenyang Rd, Taichung
Taiwan 40651 ■ P O Box: 46-283 Taichung Taiwan 40799
Tel: +886- (4)-22429845 ■ Fax:+886- (4)-23587689
Email: media.news@msa.hinet.net

Middle East Health is published by Hurst Advertising FZ LLC,

Dubai Media City, License Number: 30309 UAE National Media Council - Approval Number:

Middle East Health online

www.MiddleEastHealth.com



Middle East Health is printed by Atlas Printing Press. www.atlasgroupme.com



The United States is open for international patients

Fully vaccinated medical travellers welcome

The United States is open for foreign medical patients. This follows some uncertainty among medical travellers due to the closing of borders because of the Covid-19 pandemic.

"The United States is definitely open to fully vaccinated international medical travellers," declared USCIPP (the US Cooperative for International Patient Programs), when speaking to Middle East Health.

All non-immigrant, non-citizen air travellers to the United States will require proof of vaccination before boarding an aircraft to the US, according to the US State Department, which updated the

requirements for air travellers to the United States on November 8. [1]

According to USCIPP, acceptable vaccines include those approved by the U.S. FDA or authorized by the WHO for emergency use. This includes Pfizer-BioNTech, Moderna, Johnson & Johnson, AstraZeneca/Oxford, Sinopharm, Sinovac, and Covishield.

The US State Department says exceptions to this policy will be extremely limited and include: children under 18; people medically unable to receive the vaccine; and emergency travellers who do not have timely access to a vaccine.

"Humanitarian exemptions to this order

will be granted on an extremely limited basis," the State Department emphasises.

Speaking to USCIPP about the affects of the pandemic on medical travellers to the US, the organisation said that there had been a notable downturn in the number of medical travellers, but could not provide specific figures for patients from the GCC.

USCIPP – the US Cooperative for International Patient Programs, an organizational membership program of the National Center for Healthcare Leadership – is a consortium of 60 American hospitals and health systems that share a focus on providing care to international patients, offering cross-border education and

training programs, providing management and consulting services to hospitals and governments abroad, and offering various other forms of international collaborations in healthcare.

According to figures from their membership, between July 2018 and June 2019 (the benchmarking year prior to the start of the pandemic), 66,529 total unique international patients were reported by 51 organizations. This compares to 55,785 international patients between July 2019 and June 2020, reported by 47 organisations.

USCIPP was careful to point out that these figures should not be interpreted as a complete assessment of patient numbers. "This difference between this unique international patient total and the July 2019–June 2020 total should not be interpreted as a simple percent decrease, as the number of hospitals reporting in the two years is different, and different hospitals may have reported their unique international patient totals in one year but not the other."

In addition, USCIPP explained that while the 51 USCIPP members who reported international patient numbers comprise many of the US hospitals and health systems, they do not represent all the US hospitals that have international patient programs. As such the figures should be viewed as a lower bound for the actual size of the US market.

Lessons from the pandemic

Asked how the pandemic had affected their members' ability to treat international patients and if there would be any significant changes to their programs in the future, USCIPP said that during the pandemic many institutions pivoted to providing international telemedicine and remote second opinions, virtual advisory and consulting services, and virtual education and training services.

"For many US providers, the pandemic reinforced the notion that the international medical travel industry is cyclical and vulnerable to shocks, but can bounce back. The pandemic also highlighted the importance of the work that the international departments do," USCIPP explained.

"The loss of international patient volume affects institutions' abilities to fulfil the part of hospitals' missions related to helping expand the global reach of medical breakthroughs and innovations and had a disproportionate impact on many institutions' financial stability. Compared to before the pandemic, there will most likely be an even greater focus on timely payments from international payors moving forward."

In terms of lessons learned, USCIPP said US healthcare organizations should continue to adapt to changes and be innovative regarding new ways of working together internationally. This would include the aforementioned services in addition to holding virtual, international symposia as well as virtual tumour boards between physicians at institutions in different countries.

"We are seeing signs that all of these areas of work will, as expected, deepen existing collaborations and expand relationships in ways that will also spill over into ensuring patients who need to travel for care are able to access that care through easy referral pathways with known and reputable providers."

For many US providers, the pandemic reinforced the notion that the international medical travel industry is cyclical and vulnerable to shocks, but can bounce back. The pandemic also highlighted the importance of the work that the international departments do.

So the U.S. is back in business with regards international travel and there are clear signs of a revival of the industry following the Biden administration's announcement in September that it would lift restrictions on international travel to the US. Major airlines including United and Delta have reported significant increases in international bookings and airfare-tracking site Hopper said international flight searches to the US have more than quadrupled since the September.

This is welcome news for medical travellers who have had to put their travel plans on hold. The U.S. remains one of the world's leading destinations for complex medical procedures and patients from around the globe can now again take advantage of their life-saving treatments.

References:

https://travel.state.gov/content/travel/en/traveladvisories/ea/requirements-for-air-travelers-to-the-us.html



Mayo Clinic again ranked No. 1 hospital in the USA

Mayo Clinic has again been ranked the No. 1 "Best Hospital" in the United States by U.S. News & World Report in its 2021-2022 "Best Hospitals" rankings, for the sixth consecutive year.

U.S. News & World Report has again recognized Mayo Clinic as the No. 1 hospital overall and top ranked in 14 specialties. Mayo Clinic in Rochester has also been ranked No. 1 in the state of Minnesota for nine consecutive years. Mayo Clinic in Arizona has ranked No. 1 in the state of Arizona for nine consecutive years and Mayo Clinic in Florida has ranked No. 1 in the state of Florida for five of the last six years.

Mayo Clinic in Arizona is ranked No. 15 on the "Best Hospitals" Honor Roll rankings, which marks the fifth consecutive year that Mayo Clinic in Arizona has been named a top 20 hospital.

"Mayo Clinic is honored to be the No. 1 ranked hospital in the nation for the sixth consecutive year, and we are truly grateful to our extraordinary staff for always putting our patients' needs first in the exceptional care that they provide," says Gianrico Farrugia, M.D., president and CEO, Mayo Clinic. "At Mayo Clinic, each patient receives specialized care from an innovative, collaborative and highly talented team that is committed to both treating serious or complex disease and advancing new and better cures through innovative research."

The U.S. News & World Report "Best Hospitals" rankings feature 20 hospitals with the highest combined overall scores in 15 medical and surgical specialties, and 17 common procedures and conditions. Hospitals are measured on factors such as survival, experience, nurse staffing, advanced technology, patient services and reputation with other specialists. Hospitals also are ranked regionally within states and major metro areas.

"This recognition reflects our staff's consistent performance in improving the lives and health of people throughout our



community, across the nation as well as worldwide," says Sean Dowdy, M.D., Mayo Clinic's chief value officer, and Robert D. and Patricia E. Kern Associate Dean of Practice Transformation. "I am proud of the staff with whom I work alongside every day and who are driven to provide quality and equitable care to each of our patients. We are grateful whenever our dedicated staff is duly recognized, and we know that they do this work because they have a truly compassionate desire to ensure our patients' health comes first."

Mayo Clinic as a global destination for hope and healing began as a single physician medical practice in 1864. Today, Mayo Clinic's mission remains steadfast, with more than 73,000 staff providing expert, compassionate care to more than 1.3 million patients from every state and nearly 130 countries each year.

Complex care often requires medical experts from more than one specialty. With world-class experts working together across specialties to give your patients the unparalleled care they deserve, Mayo Clinic is a destination for all who need certainty, options and hope.

• To refer a patient or to learn more visit *mayoclinic.org/international* or scan the QR code below.



World-class care within reach



The global pandemic proved just how shared the world really is, especially when it comes to health. Stanford Medicine, including Stanford Health Care, Stanford Children's Health, and the School of Medicine, offers exceptional care and treatment to international patients and their physicians. And now that the world is reopening, Stanford Medicine is here for you.

Bridging innovation, technology, and state-of-the-art facilities

Researchers, educators, and physicians at Stanford Medicine are passionate about creating solutions to transform health worldwide. Stanford Medicine provides access to in-depth research that goes from discovery to deployment of new diagnostics, to over 1,200 clinical trials in progress that patients can participate in, to innovative technology and treatment therapies, and to world-renowned expertise.

Stanford Medicine's clinical networks, precision health care approach, and unique position as a leading academic medical center in the heart of Silicon Valley enable deeply personal patient care by bridging medicine and technology. This individualized care is evidenced at the state-of-the-art Stanford Hospital offering 600 beds and at Lucile Packard Children's Hospital Stanford with 198 beds.

World-renowned expertise and acclaim

Stanford Medicine is known for excellence in a variety of specialties and is recognized by U.S. News & World Report with an overall ranking of #12 in the U.S. Stanford Children's Health treats children with disorders of brain development, function, and behavior and is ranked #8 in the U.S.





in pediatric neurology and neurosurgery by U.S. News & World Report. For adults, Stanford Medicine's Department of Neurosurgery consistently ranks among the best and busiest neurosurgery centers in the nation with 60,000 annual outpatient visits and 4,000+ operations. Stanford Medicine is one of eight Mitral Valve Repair Reference Centers in the U.S. and for adults is ranked #8 in the nation by U.S. News & World Report for cardiology and heart surgery.

For cancer care, Stanford Medicine is responsible for some of the most important medical advances of the 20th century and is building on that legacy in the 21st; it is ranked #12 by U.S. News & World Report for cancer care. Recognized as a comprehensive cancer center by the National Cancer Institute, the Stanford Cancer Institute quickly translates discoveries into improved diagnostics and safer, more effective therapies.

Stanford Medicine continues to be world-renowned for transplant outcomes for both patient and graft survival. In 2020, Stanford Medicine performed the most heart transplants and one-quarter of all heart-lung transplants in the U.S., with a 95% one-year heart transplant survival rate at Stanford Health Care and a ranking of #3 in the nation in organ transplant volume and #1 in kidney transplant volume and survival outcomes in the U.S. at Stanford Children's Health.

Access for international patients and their physicians

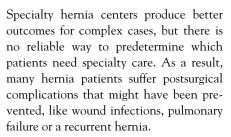
The International Medical Services (IMS) department welcomes patients from around the world by providing high-touch, individualized, and culturally competent services 24/7 year round. The seasoned team assists with identifying and scheduling appointments with the right physicians for each patient, interpretation and translation services for patients, family members, and caregivers, dealing with billing and insurance, and helping plan your visit, among other services. The Online Second Opinion program at Stanford Medicine is also available to patients and their physicians who have received a diagnosis or treatment plan and wish to have a second opinion from a world-class Stanford Medicine physician.

Stanford Medicine is committed to improving human health globally by leading innovation in research, education, and clinical care. Educational opportunities for international physicians, such as clinical observerships and hospital campus visits and tours, can be arranged by IMS as well.

• To learn more about what Stanford Medicine can offer you, contact IMS at ims@stanfordhealthcare.org, or visit stanfordhealthcare.org/ims.

Atrium Health introduces the world's first AI tool for predicting surgery outcomes





To address this, hernia specialists at Atrium Health Carolinas Medical Center have developed the world's first computer program that uses artificial intelligence (AI) to predict surgical complexity and future complications for hernia repair patients, based on preoperative CT scans. In testing, the program was 75% accurate at identifying patients who would need component separation, a complex operative procedure used in abdominal wall reconstruction, and almost 90% accurate at identifying patients who would develop a wound infection after surgery.

This is the first predictive tool to rely exclusively on objective data. Research behind the tool has won awards from the Americas Hernia Society and the American College of Surgeons.

"This tool could potentially help patients and surgeons make clear, educated decisions concerning if and where to have surgery and to what extent preoperative preparation is needed to prevent patients from needing additional hernia surgery or follow-up treatment," says B. Todd Heniford, MD, chief of the Division of Gastro-



intestinal and Minimally Invasive Surgery at Atrium Health Carolinas Medical Center's Department of Surgery. "It also helps prove the value of advanced analytics in preoperative planning."

Predicting surgical complexity

To make this tool, Dr. Heniford and a comprehensive team built a neural network – the layers of algorithmic calculation that form the AI's "brain." Then they trained the AI by feeding it CT scans from hundreds of past patients.

"Basically, the computer taught itself what to look for in a scan in order to tell whether someone can expect a complex surgery or complication," Dr. Heniford says.

The program reviewed each image more than 12,000 times, recording features that correspond with the need for component separation, the development of wound infection after surgery and the development of postsurgic

Finally, they tested the AI by feeding it another batch of images from past patients and asking it to identify which ones developed the 3 outcomes. The AI was 89% accurate at predicting infection, and its success in predicting pulmonary failure was 54.5%.

A panel of international hernia experts reviewed the same scans and made predictions about the need for component separation. The AI was 75% accurate at predicting surgical complexity, almost 15 points better than the experts.

"The computer beat us handily," says Dr. Heniford

Altogether, Dr. Heniford says these predictions not only identify who needs specialty care but can also help patients decide whether to pursue surgery.

"If I tell you there's a 54% chance you'll develop pulmonary failure as a result of this operation, you may decide against it," adds Dr. Heniford.

Building a brighter surgical future

The team will soon share the model with other institutions, to test it using images of another 100 patients. Subsequently, Dr. Heniford plans to turn it into another app.

"Imagine," he says, "dragging an image into this program and getting 3 clear answers: Yes, this patient needs component separation; yes, they'll have an infection; no, they won't have a lung problem. That is game-changing clarity."

The team hopes their work leads to similar models and apps in other areas with complex operations, such as liver and lung tumors.

"If we can do this for hernias, there's no reason you can't bring this kind of clarity to other surgeries as well," Dr. Heniford says.

• To learn more about this unique tool, email Dr. Todd Heniford at:

Todd.Heniford@AtriumHealth.org

• Atrium Health Carolinas Medical Centre

https://atriumhealth.org/locations/detail/carolinas-medical-center

A destination for life-changing care





Atrium Health is a trusted destination for patients and partners from around the world. Home to some of U.S. News & World Report's Best Hospitals and MedCenter Air, we provide renowned care across specialties, with remote second opinions and groundbreaking clinical trials. From treating patients to training the next generation of doctors, we believe excellent care knows no borders. And that everyone, everywhere deserves life-changing care.

Learn more at AtriumHealth.org/GlobalHealth or call 888-327-3915.

International brain tumor patient heads home after treatment at Miami Cancer Institute



Baptist Health South Florida

When Paula Vargas started complaining about random headaches and problems seeing out of her right eye, the thriving, 27-year-old lawyer thought that stress from work might be causing the issues. After seeing her doctor in her native city of Bogota, Colombia, scans and tests revealed something much more serious.

Ms. Vargas was diagnosed with a chordoma, a rare type of cancer that occurs in the bones of the skull base and spine.

"This was a shock to me and my family, I was a healthy woman and nothing can prepare you for this," said Ms. Vargas.

Chordomas are complicated tumors to treat due to the involvement of critical structures such as the brainstem and spinal cord. They can also come back after treatment — many times in the same place as the first tumor.

After undergoing surgery in Colombia to remove the majority of the tumor, she was told by her doctors that proton therapy would be the best course of action to finish treating her chordoma. Unfortunately, proton therapy is not available in Colombia.

Proton therapy

An advanced form of radiation treatment, proton therapy uses high-energy beams to treat tumors. Unlike traditional radiation therapy, which uses X-rays, proton therapy uses streams of particles called protons to deliver the radiation dose to the cancer cells. One of the benefits of proton therapy is that the radiation dose is delivered solely to the tumor without damaging the surrounding healthy tissue. Miami Cancer Institute offers one of the world's most comprehensive and advanced radiation oncology programs, including South Florida's first proton therapy center.

Through the recommendation of a family member, she reached out to Baptist Health International, to explore her options. That's when she met Jacqueline Bachelier, a senior international patient services coordinator with Baptist Health International.

"In Paula's case, it was like I gained a sister," said Bachelier. "Because we are in such constant contact with these patients over a period of time, they truly become like an extension of our family," she added.

Consultation

Baptist Health International makes the initial consultation with a patient's doctor to review the case and assess treatment needs. Once the case is taken on, medical records and imaging are obtained and other logistics such as visas, travel arrangements and insurance coverage are coordinated.

"This was a very rare tumor, typically these patients are evaluated in a multidisciplinary setting, they require surgery first and then radiation therapy afterwards," said Rupesh Kotecha, M.D., a radiation oncologist and chief of radiosurgery at Miami Cancer Institute, who oversaw Paula's course of treatment.

During initial tests at Miami Cancer Institute, Ms. Vargas was shocked to learn that her tumor had come back in just a few months, requiring her to have two additional surgeries to remove the tumor before her treatment. Vitaly Siomin, M.D., a neurosurgeon at Miami Neuroscience Institute and Miami Cancer Institute performed the surgeries.

CyberKnife

Ms. Vargas then began her treatment, which involved multiple sessions of proton therapy as well as the use of CyberKnife™ technology, another modality delivers high doses of radiation precisely



Rupesh Kotecha, M.D., radiation oncologist and chief of radiosurgery at Miami Cancer Institute

- with millimeter-accuracy - to tumors in virtually any location in the body. Having both of these technologies available at the cancer center allowed her physician team to combine the best of each, to personalize her treatment.

Ringing the bell

After having spent nearly a year in Miami, Ms. Vargas recently celebrated what she calls a victory for her and her family by ringing the bell three times at Miami Cancer Institute to mark the end of her treatment. "I'm grateful to get this second chance to live my life and I'm ready to take advantage of that," said Ms. Vargas.

While Ms. Vargas is currently wearing a patch to allow her left eye to rest, she is expected to recover use of the eye in a few months. Ms. Vargas is eager to return to Colombia, reuniting with friends and family and resuming her duties as a lawyer for the Colombian government, as well as other entrepreneurial ventures.

• Baptist Health International offers a full range of services for international patients. For inquiries or to schedule an appointment, call 786-596-2373 or email International@BaptistHealth.net.

Better is having renowned physicians leading innovative treatments.



At Miami Cancer Institute, molecular diagnostics is used to fully understand the molecular makeup of a patient's cancer, which helps our experts create personalized and targeted treatment plans. Our Institute is at the forefront of cancer treatment, prevention and innovation. It's this level of expertise and innovation that led one of our physician leaders to successfully treat the first COVID-19 patients with umbilical cord mesenchymal stem cells. With a full understanding of the genomic architecture behind each cancer, our experts are able to successfully leverage precision therapies and provide better outcomes for your cancer.

Because what matters most is your health, customized safety measures are in place to ensure that you feel comfortable and are able to receive the best cancer care in a safe environment.

Learn more at BaptistHealth.net/International, by calling 786-596-2373 or by emailing International@BaptistHealth.net.



Miami Cancer Institute

BAPTIST HEALTH SOUTH FLORIDA Better. For You.

Breast cancer: what you need to know about treatment options

There are many options for treating breast cancer, including breast cancer surgery, radiation therapy, chemotherapy, hormone therapy, and more. And while treatment is often necessary, research suggests that certain therapies for breast cancer can increase a patient's risk of heart disease in the future. Let's look into how breast cancer treatments can affect the cardiovascular system.

What effects can estrogen-based hormone therapy have in women's cardiovascular systems?

Some tumor growths are dependent on hormones. If your lab results show estrogen-positive (ER+) and progesterone-positive (PR+) tumors, your doctor may recommend hormone therapy as a treatment to prevent the growth, spread, and recurrence of breast cancer. Having ER+ or PR+ tumors means that remaining cancer cells will continue to grow in the presence of these hormones in your body. Hormone replacement therapy (HRT) will block your body's natural production of either estrogen or progesterone to help prevent the growth of ER+ and PR+ tumors.

While previous research has shown that HRT can reduce heart disease in women over 40, new studies suggest that the opposite may be true. Studies on the long-term use of HRT in women indicate that while it might decrease a woman's susceptibility to osteoporosis later in life, it may also cause a higher risk of heart attack, stroke, and other serious health problems.

Currently, the understanding of estrogenbased HRT in the treatment of older women is still being developed. What we do know is a mix of positive and negative effects. It:

- Relaxes and dilates blood vessels to increase blood flow
- Increases HDL cholesterol (good cholesterol)
- Decreases LDL cholesterol (bad cholesterol)
- Helps remove naturally occurring particles in the blood that can harm arteries
 - Can promote the growth of blood clots



Is there a link between chemotherapy, radiation therapy, and heart failure?

Recent studies have suggested a link between chemotherapy, radiation therapy, and cardiotoxicity. Chemotherapy and radiation therapy are two of the more well-known treatments for cancer. Radiation therapy includes targeted and precise radiation of cancerous areas in the body, and chemotherapy is the use of medication to stop the growth and development of cancer cells. A growing field of research into the long-term effects of cancer treatment is beginning to find a link between chemotherapy, radiation therapy, and congestive heart failure.

With improvements in cancer treatment, cancer patients live longer, giving way to long-term side effects from treatments as they get older. Certain medications used in chemotherapy might contribute to the development of heart failure, also known as cardiotoxicity, in the years after cancer treatment. The use of radiation therapy to treat breast cancer can also increase risks of heart failure due to radiation being directed at cancer growing in the chest area.

Some studies have found that within five years of recovery, heart failure becomes three times more likely in people who received treatment for breast cancer or lymphoma than in people without a history of cancer treatment. Additionally, the age at which you received cancer treatment can increase your likelihood of heart

failure even more. People who are treated for breast cancer or lymphoma who are 80 years of age or older have a greater risk of congestive heart failure than those who were treated at a younger age.

Who is at a higher risk of congestive heart failure after breast cancer treatment?

Breast cancer patients who have any of the following risk factors are at an increased risk of congestive heart failure.

- History of smoking
- History of heart failure
- History of diabetes
- An inactive lifestyle
- People who receive treatment for cancer at 80 years of age or older

Our health system has dedicated oncology and cardiology teams who work collaboratively with their patients to provide innovative and personalized care options. Baylor St. Luke's Medical Center is nationally ranked for cancer care and for cardiology and heart surgery.

Contact Baylor St Luke's:

StLukesHealth.org/ BSLMCInternational international@stlukeshealth.org

Tel: +1 832-355-3350 Texas Medical Center, Houston, Texas – U.S.A

Award-winning care meets humankindness.

Medical breakthroughs have continued to help people live healthier lives, and we're honored to be recognized for them. With our new rankings by *U.S. News & World Report*, we celebrate these advancements and the power of humankindness to provide healing for our communities in the best way.

Learn more at stlukeshealth.org./bslmcinternational

Hello humankindness®













Quality, compassionate care are at the heart of NewYork-Presbyterian

NewYork-Presbyterian is dedicated to providing the highest quality, compassionate care to patients in New York and across the globe. In collaboration with two renowned medical schools, Columbia University Vagelos College of Physicians and Surgeons and Weill Cornell Medicine, NewYork-Presbyterian (NYP) is consistently recognized as a leader in medical education, groundbreaking research, and innovative, patient-centered clinical care.

With the most top doctors in the U.S. on Castle Connolly's Top Doctors survey and ranked in the top 10 in U.S. News and World Report's Best Hospital's Survey, NYP treats conditions from the simple to most complex, with particular expertise in the following:

Heart

NYP continues to advance treatment for heart disease through programs that are among the largest and most comprehensive in the U.S. Our physicians and surgeons have led the field to develop and refine minimally invasive techniques while achieving greater survival rates with fewer complications. These include transcatheter interventions; the use of robotics in cardiac surgery; and new drug and devicebased treatments for arrhythmias.

With leading programs in pediatric cardiology and cardiac surgery, we have extensive experience with complex cases. We have developed novel techniques to treat complex congenital heart defects and excel in minimally invasive techniques to replace diseased heart valves, close cardiac defects, and implant stents.

Neurosciences

The Neurology and Neurosurgery programs at NYP are leaders in the diagnosis and treatment of neurological diseases and disorders. Our renowned specialists continue to make clinical advances and research discoveries in glioblastoma, provide innovative treatments for complex epilepsy, and explore new applications for high-intensity focused ultrasound for neurological conditions.

Our world-renowned neurosurgical and orthopedic spine surgeons at the NYP Och Spine Hospital treat adults and children with simple to highly complex spine cases like scoliosis and spinal tumors, providing customized care for each unique spine problem.

Cancer

Home to two major cancer centers – the National Cancer Institute-designated Herbert Irving Comprehensive Cancer Center at Columbia and the Weill Cornell Medicine Meyer Cancer Center at NewYork-Presbyterian – our cancer specialists are helping to accelerate the discovery and development of novel diagnostic and therapeutic advances in cancer. Collaborating on strategies for early detection and optimal diagnosis, developing groundbreaking therapies, and applying the latest technology and techniques, we translate discoveries from the lab directly into the clinic. Our adult and pediatric patients benefit from the latest anti-cancer drugs, novel and targeted therapies, advanced radiation treatment, and emerging minimally-invasive surgical procedures.

Transplantation

An international leader in the transplantation of organs including the heart, lung, liver, kidney, intestine, and pancreas, NYP is the most experienced and one of the highest-volume programs in the U.S. Our pediatric organ transplant program has





With multiple locations, NewYork-Presbyterian provides care to over 5,000 international patients each year.

more than 50 years of experience. We offer living donor transplant and have a long history of successfully performing transplants on some of the most complex patients, including those who require multiorgan transplants.

Global Patient Services

NYP has a long history of caring for patients from the MENA region and collaborates with government and private institutions to provide care. We understand how valuable it is to have support while planning for care far from home. Our team provides customized service and personal attention every step of the way:

- Schedule physician visits, clinical appointments or tests
 - Escort patients to appointments
- Explain and interpret medical information, instructions, and procedures
- Facilitate communication between referring physicians and NYP physicians
- Organize global air ambulance, ground ambulance, or other emergency transport services for critically ill patients
- Plan travel itineraries for patients and family, including hotels or furnished apartments, or the Hospital's onsite facilities.

Contact Us

MENA Representative: Issam Ramadan Cell: +971 56 624 2588

Email: isr9012@nyp.org

NY Main Office: +1 212 746 9100 Email: globalservices@nyp.org



NewYork-Presbyterian COLUMBIA





IN NEW YORK

THE BEST HOSPITAL IN NEW YORK FOR OVER 20 YEARS

Here's to our doctors, nurses, staff, and patients. Because of you, we are one of the nation's best hospitals.

NewYork-Presbyterian

NewYork-Presbyterian Hospital as ranked by U.S. News & World Report 2021-22







World class healthcare, world class destination

Northwestern Medicine^{*}

Northwestern Medicine is an integrated academic health system anchored by Northwestern Memorial Hospital, a top 10 hospital in the U.S. and the No. 1 hospital in Chicago and Illinois, as ranked by the U.S. News & World Report 2021-2022 Honor Roll of America's Best Hospitals. Northwestern Medicine provides patients with access to world-class medical care, delivered in state-of-the-art facilities offering leading-edge treatment options.

Northwestern Medicine has 11 hospitals, more than 200 outpatient clinical sites, more than 33,000 employees, and more than 4,000 practicing physicians on the medical staff.

Below are some highlights of our Clinical Centers of Excellence:

- Cancer Services at the Robert H. Lurie Comprehensive Cancer Center: 1 of 4 programs in the United States to receive the highest ranking of 'exceptional' by the National Cancer Institute, and a Top 10 Program by U.S. News & World Report. Services include all surgical interventions, cyberknife, minimally invasive surgery, BMT, CAR-T, chemo, radiation, precision (personalized) medicine, and the only Proton Center in Illinois.
- Transplant Services at Northwestern's Kovler Organ Transplantation Center: Top transplant outcomes and among the highest volumes in the country for lung, liver, kidney, heart, islet cell, and stem cell transplants. Our program has transplanted more than 5,000 kidneys and 1,700 livers, with an over 95% score on clinical outcomes, which is higher than the national average including higher acuity patients.
- Neurosciences Institute: Ranked among the Top 5 Programs in the United States per U.S. News & World Report.

World-renown expertise in glioblastoma surgery and management, chordomas, all other brain and spinal tumors, epilepsy management including minimally invasive surgery options and surgery, as well as reconstructive spinal surgery.

- Orthopedics: A top program housing the President of the International Orthopedic Association. The clinicians are leaders in all forms of orthopedic surgery and manage arthritis, chronic pain from nerve injuries, failed surgery, joint disease and replacement, peripheral nerve injuries, rehabilitation for injuries to bones, muscles, tissues, joints, central nervous system, spinal disorders and injuries, sports medicine, and the most complex types of cases.
- Cardiology, Cardiac Surgery, and Vascular Surgery: A Top 10 Program per U.S. News & World Report with extensive expertise in all areas, focus on TAVR, mitral valve repair, PRT, BPA, heart transplantation, and home to the first-ever Center for Artificial Intelligence in Cardiovascular Disease.
- **Urology:** A clinically ranked specialty per *U.S. News & World Report* with extensive expertise in radical prostatectomy, bladder cancer, urinary management after spinal cord injury, and male infertility.
- Women's Health: Extensive expertise in minimally invasive surgery, fertility, including IVF, IUI, cervical cancer detection and treatment, maternal-fetal medicine for high-risk pregnancy, and urogynecology.
- Digestive Health: A clinically ranked specialty per *U.S. News & World Report*, extensive experience with motility/ achalasia, IBD, minimally invasive surgery for tumor removal, pancreatectomy, and complex ERCP.
- Interventional Radiology: Led by Dr. Riad Salem, this program has the most experience worldwide in providing Y-90 radioembolization, which after a 15-year study led by Northwestern, was proven to be superior to the current standards of care

at other centers. The program also developed a new embolization protocol for prostate enlargement.

Northwestern Medicine International Health

Northwestern Medicine International Health helps to connect patients and caregivers to the most advanced medical care at Northwestern Memorial Hospital and its affiliates, while driving innovation and growth in hospitals and clinics worldwide.

With a dual focus on the patient and supporting the global development of healthcare, Northwestern Medicine International Health works to create outstanding patient care worldwide.

Serving patients and caregivers from over 100 countries, those coming to Northwestern Medicine for treatment are welcomed with personal support and assistance throughout their healthcare journey.



• For more information, contact:
Hassan El Banna, MD, MSHSM
Chief International Executive for NM
Business Development
International Health
Northwestern Medicine
+1 202 812 8822
hassan.elbanna@nm.org
https://www.northwesterninternational
health.com/



Northwestern Medicine is proud to be Chicago's premier destination for academic medicine. According to *U.S. News & World Report*, 2021–2022, our integrated healthcare system includes five of America's "Best Hospitals," including Northwestern Memorial Hospital, one of the top 10 in the U.S. with 10 nationally ranked specialties. Together with Northwestern University Feinberg School of Medicine, our nationally ranked medical school, we provide exceptional care to patients across Chicagoland—and the world.

Find out what makes us better. Visit northwesterninternationalhealth.com.

BETTER



Autologous stem cell transplantation for treatment-resistant juvenile-onset systemic sclerosis



Juvenile-onset systemic sclerosis (jSSc) is a rare (two in 100,000) autoimmune disorder in children that causes thickness and tightening of the skin, decreased joint motion, and discoloration with coolness of the fingers and hands (Raynaud's phenomenon). Other internal organs can become involved, including the muscle, heart, lungs, and gastrointestinal tract. These children need specialized medical treatment and physical and occupational therapy.

The Juvenile Systemic Scleroderma Center at UPMC Children's Hospital of Pittsburgh:

- Can help children manage and control this condition as a team so they can live a more active and pain-free life
- Is the only center in the U.S. dedicated to diagnosing and treating children with this rare disorder
- Is a multidisciplinary center with many services available to help better evaluate patients' scleroderma in the different organs
- Is one of the few centers in the nation performing stem cell transplant therapy for certain patients with jSSc
- Has a dedicated research program for jSSc.

Stem cell transplant therapy for jSSc

Our center at UPMC Children's Hospital has developed reduced intensity conditioning protocols for both pediatric and adult onset systemic scleroderma using CD34-selected peripheral blood autologous stem cell therapy (ASCT), including our Immune Transplant and Therapy Center (ITTC) protocol (ClinicalTrials. gov Identifier: NCT03630211). We report

initial safety and clinical response of three jSSc patients who received ASCT at our center with comorbidities too advanced even for our "ITTC" trial.

Patients with severe and progressive disease referred to our center were evaluated by Kathryn Torok, MD, pediatric rheumatologist and medical director of the Juvenile Systemic Scleroderma Center, and referred to Blood and Marrow Transplantation and Cellular Therapies (BMTCT) if deemed to be refractory to standard clinical care. A dedicated multidisciplinary team comprising Rheumatology, BMTCT, Cardiology, Pulmonology, and Gastroenterology evaluated the patients to determine their baseline status and eligibility for an existing protocol (ITTC) or an Investigational New Drug (IND) application if more suitable. After Institutional Review Board approval and consent, patients underwent ASCT with standardized safety, clinical outcome, and patient-reported measures collected at baseline (pre-ASCT), 6, and 12 months post-ASCT.

All three patients tolerated the ASCT protocol well overall. There were no serious infections, and no serious organ dysfunction. There was one safety concern regarding a drug reaction in two patients; both recovered with intervention.

Improvement was seen across several outcome measures, both measured by the clinician and by the patient. These included:

- Skin thickness
- Musculoskeletal
- Range of motion small to large joints
- General flexibility
- Strength
- Oral aperture
- Gastrointestinal
- Improved lower esophageal pressure
- Less esophageal acid exposure
- Visual analog scales pain, hand function, Raynaud's, pulmonary



Kathryn Torok, MD, pediatric rheumatologist and medical director of the Juvenile Systemic Scleroderma Centre at Children's Hospital of Pittsburgh.

- GIT (scleroderma GI tract instrument)
- C-HAQ (global daily functioning scale)

One patient said: "It has helped tremendously for my lungs. I'm now able to do things I couldn't have done before like riding a bike without gasping for air."

Conclusions

Preliminary data supports the safety and efficacy of autologous stem cell therapy with CD34-selected peripheral blood stem cells in juvenile onset systemic sclerosis at our center.

Future studies in stem cell transplant in systemic sclerosis should expand to include:

- Enrollment of children, teens, and young adults
 - Limited cutaneous skin disease
 - Overlap with myositis
- Consider patients with longer-standing disease and more severe disease
- To learn more, contact International Services at UPMC Children's by phone at +1-412-692-3000 or via e-mail at: international@chp.edu. Our experts will respond to your questions within three business days.



UPMC Children's Hospital of Pittsburgh is a leading international center for liver transplantation as a treatment for metabolic disease.

As one of the best children's hospitals in the United States, as named by *U.S. News & World Report*, UPMC Children's Hospital of Pittsburgh is a pioneer in the field of liver transplantation, which has proven to be a life-changing solution for patients with metabolic disease.

Liver transplantation can dramatically reduce symptoms, and in cases like maple syrup urine disease (MSUD), can provide a cure.

Liver transplantation is more than a life-saving procedure; it's also an attractive approach for improving quality of life for many patients with metabolic disease. In 2004, we developed the protocol for liver transplantation for MSUD. Today, we've performed more transplants on patients with MSUD than any other center in the world. That's more than 100 patients with a 99% survival rate. All of these patients show normal liver function, have avoided the risk of neurological complications, and enjoy an unrestricted diet.

We've performed more liver transplants for patients with metabolic disease than any other transplant center.

Since the inception of our program in 1981, our world-renowned experts have performed more than 1,900 liver transplants — that's more than any other center in the United States — with survival rates that exceed national averages. Additionally, we've performed more than 300 liver transplants for patients with metabolic disease, which is more than any other center, including adult facilities. We are leaders in living-donor liver transplants, which eliminate wait times for a deceased donor and can provide excellent outcomes.

Find out more about our excellent outcomes and extraordinary care.

Our experience, expertise, and commitment to innovation and compassionate care are reasons why patients and families from around the world travel to UPMC Children's Hospital of Pittsburgh. For a free phone consultation with one of our experts in liver transplantation as a therapeutic option for metabolic disease, please email international@chp.edu.



Mayo Clinic No. 1 hospital in the USA.

U.S. News & World Report 2021-2022

As the No. 1 hospital in the USA, we turn scientific discoveries into promising treatments faster, so patients can get the care they need sooner. We are available to partner with you and make sure your patients are getting the answers they need, and the best care possible. We can provide answers to your most challenging cases, either through collaboration or referral. Visit mayoclinic.org/international or scan the QR code below to learn more.



