

Orthopedic Surgery

2018 Year in Review



MESSAGE FROM THE CHAIR

High-value orthopedic care is not just what happens in the surgical suite. We are deploying innovative ideas to improve patient outcomes.

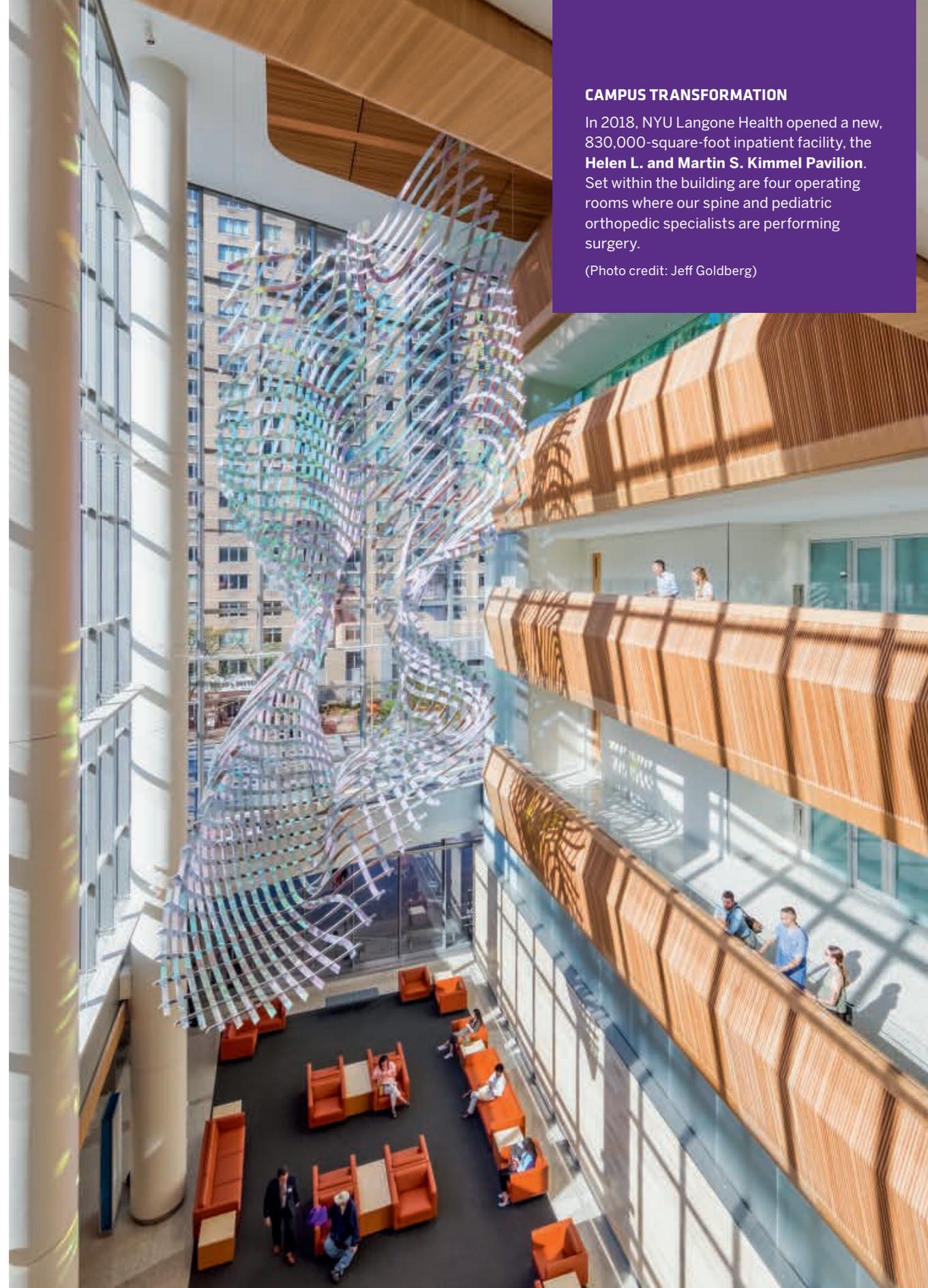
Last year, the Department of Orthopedic Surgery at NYU Langone Health continued to tackle challenges in healthcare. Our faculty members refined digital tools for predicting patient risk, launched new delivery models to provide more personalized care, and pooled our expertise to significantly decrease opioid use.

These innovations are all part of our commitment to work collaboratively to ensure the best possible outcomes for our patients and for orthopedic surgery patients across the country.



JOSEPH D. ZUCKERMAN, MD

Walter A.L. Thompson Professor of Orthopedic Surgery
Chair of Orthopedic Surgery
Surgeon-in-Chief
NYU Langone Orthopedic Hospital



CAMPUS TRANSFORMATION

In 2018, NYU Langone Health opened a new, 830,000-square-foot inpatient facility, the **Helen L. and Martin S. Kimmel Pavilion**. Set within the building are four operating rooms where our spine and pediatric orthopedic specialists are performing surgery.

(Photo credit: Jeff Goldberg)

DEPARTMENT OF ORTHOPEDIC SURGERY

Top 10



IN THE COUNTRY FOR ORTHOPEDICS

in *U.S. News & World Report's* "Best Hospitals" and the

ONLY HOSPITAL IN NEW YORK TO BE RANKED THE TOP 10

in orthopedics, rheumatology, and rehabilitation

1,000+

SAME-DAY JOINT REPLACEMENTS

since 2015

Largest Residency

IN THE COUNTRY

with 72 positions

197

FACULTY

20

FELLOWS

Mobilizing Our Resources to Reduce Opioid Use

The Department of Orthopedic Surgery at NYU Langone Health is leading an institution-wide effort to rethink the role of opioids in patient care. Through a series of linked initiatives developed over the past two years, the department has reduced—and in some cases eliminated—the use of opioids for postoperative pain control in orthopedic surgery.



Joseph A. Bosco III, MD, and Claudette M. Lajam, MD

OPIOID-SPARING PATHWAYS

Starting in 2017, the department's divisions strategized opioid-free or "opioid-light" postoperative pain regimens for their subspecialty procedures.

Roy I. Davidovitch, MD, Julia Koch Associate Professor of Orthopedic Surgery, spearheaded efforts to develop an opioid-sparing protocol for patients undergoing hip arthroplasty. The pathway includes acetaminophen and meloxicam on the day before surgery, and only minimal opiates are given intraoperatively. Following surgery, patients continue with non-opiate pain control and receive 12 milligrams of tramadol as a drug of last resort.

"Education is the key point," says Dr. Davidovitch. "We instruct patients to take the tramadol only on an as-needed basis after they have exhausted the other medications—and only if their pain is greater than the pain they had before surgery."

Dr. Davidovitch and colleagues trialed the new pain regimen in late 2017 with same-day hip replacement patients. Among this group, in-hospital opioid consumption was reduced by about 75 percent. "The new standard of care is multimodal pain management," he says.

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The new standard of care is multimodal pain management.”

—Roy I. Davidovitch, MD

Since 2016, the Department of Orthopedic Surgery has reduced postoperative morphine milligram equivalent (MME) pain control by approximately

35%

Kirk A. Campbell, MD



Division leaders have carefully studied the impact of new pain regimens on patient satisfaction. For example, a group led by Kirk A. Campbell, MD, clinical assistant professor of orthopedic surgery, compared standard opioids with oral nonsteroidal anti-inflammatory drugs (NSAIDs) for patients undergoing arthroscopic meniscectomy. Their study, highlighted at the 2018 Annual Meeting of the

American Academy of Orthopaedic Surgeons (AAOS) and published in a recent issue of *Arthroscopy*, found that patients on an opioid-sparing pathway experienced no significant differences in pain control or satisfaction with care. There was also no difference in one-week opioid use between the two groups, suggesting that patients nationwide are currently overprescribed opioids after this procedure.

DIVERSE COLLABORATORS

The Department of Pharmacy played a key role in efforts to revise pain management protocols. Lisa Anzisi, MS, PharmD, BCPS, pharmacy utilization manager, worked with orthopedic surgeons to establish morphine milligram equivalent (MME) conversion factors for all pain medications in use, stratifying the department's MME data by procedure using a pain threshold scale. She also worked with faculty to establish clinical protocols based on morphine equivalents. For example, physicians now offer naloxone to any patient receiving 50 mg or more of MME pain control per day. Patients receiving MME > 90 mg/day are referred for a pain consult, and MME > 120 mg/day triggers an automatic alert for potential overutilization.

"It's not always clear how the different pain drugs compare milligram for milligram," Joseph A. Bosco III, MD, professor of orthopedic surgery, vice chair for clinical affairs, says. "Calculating morphine milligram equivalents is a way to standardize doses across medications."

Healthcare IT provided critical back-end support for these efforts, working with orthopedic surgery and pharmacy to specify MMEs for all opioid analgesic order sets in the electronic health record (EHR), with embedded opioid-specific alerts. Now, for instance, when a physician prescribes an opioid for a patient on a benzodiazepine, the EHR generates a contraindication alert. In addition, patients who receive an opioid prescription automatically get a system-generated document with up-to-date instructions on safe disposal of unused medications.

These initiatives have had a significant effect on opioid usage among orthopedic surgery patients, reducing average postoperative MMEs by approximately 35 percent since 2016.

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We have collaborated with departments from anesthesia and pain management to pharmacy and healthcare IT, so this effort is truly a cross-functional response to the opioid epidemic.”

—Joseph A. Bosco III, MD

A CULTURAL SHIFT

To embed the opioid reduction initiatives into orthopedic care, the department held several professional development programs in 2018 aimed at educating faculty, residents, and medical students on opioid-sparing pain management strategies. These events included a free continuing medical education (CME) webinar on the use and misuse of opioids in postoperative care, convening experts in medicine, law enforcement, and government to provide a multidisciplinary perspective on the opioid crisis. The webinar was organized by Claudette M. Lajam, MD, associate professor of orthopedic surgery and chief safety officer for the Department of Orthopedic Surgery, and Lorraine Hutzler, MPA, associate program director for the department's Center for Quality and Patient Safety.

"It's one thing to say you want to reduce opioid consumption, but it's not as easy as simply prescribing fewer pills," says Dr. Bosco. "All of us in orthopedic surgery need to look at our surgeries, reexamine our protocols, and work across our institutions to minimize opioid use while still maximizing patient comfort and recovery."



Enhancing Patient Care Through Growth and Innovation

With the addition of noted orthopedic leaders and groundbreaking new initiatives, the Department of Orthopedic Surgery at NYU Langone Health expands its capacity for innovative specialty care.

Cordelia W. Carter, MD

SPORTS MEDICINE CENTER ADDS FOCUSED EXPERTISE FOR ACTIVE WOMEN

The unique needs of athletic and active women are the focus of the newly established NYU Langone Women's Sports Medicine Center, which offers services in primary-care sports medicine, orthopedic surgery, physiatry, sports psychology, physical therapy, nutrition, and other specialties—all aimed at helping women recover and return to their active lives.

"Research shows that female athletes are more likely than men to sustain an anterior cruciate ligament (ACL) tear, report a concussion, and suffer overuse injuries," says Cordelia W. Carter, MD, clinical associate professor of orthopedic surgery, who joined the center in August as director of women's sports medicine and pediatric sports medicine. "Unfortunately, studies also show that female athletes are less likely to return to play following a sports injury."

Dr. Carter and colleagues provide the multidisciplinary care that is vital in cases of female athlete-associated conditions such as relative energy deficiency in sport (RED-S), also known as the female athlete triad. RED-S can include low estrogen levels, resulting in the loss of a normal period and a heightened risk of stress fractures. "For a challenge like this, you really need a full team of people who understand that interaction," says Dr. Carter, who came to NYU Langone Health from Yale University School of Medicine. "That means not just an orthopedic surgeon, but an endocrinologist, a nutritionist, and a sports psychologist."

BUILDING AN INFRASTRUCTURE TO PROMOTE ORTHOPEDIC INNOVATION

The development of novel ideas that improve access, outcomes, patient experience, and cost-containment in orthopedic care delivery is the focus of a new initiative led by the department's first director of strategic planning and innovation, Thomas J. Graham, MD. Dr. Graham, who also serves as associate chief of the Division of Hand Surgery, came to NYU Langone Health from Cleveland Clinic. In his new role, he is establishing an innovation architecture that includes a process for vetting intellectual property such as medical devices and information technologies.

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Our department attracts and supports creative thinkers. Future success in healthcare will be defined by organizations who recognize the importance of innovation and maintain the infrastructure to identify unmet needs—then implement their solutions efficiently and effectively.”

—Thomas J. Graham, MD



Thomas J. Graham, MD



Joan H. and Preston Robert Tisch Center at Essex Crossing is the latest addition to NYU Langone's expanding footprint for orthopedic care in and around New York City. The new space has four operating rooms and a gym and is home to the department's new Women's Sports Medicine Center.

"Innovation is a discipline we practice by implementing a set of validated instruments for judging ideas in an objective fashion," he says. "This includes a peer-review process for evaluating both clinical and practical merit." The initiative will also include an industry and investor advisory board to assess the economic potential of innovations.

According to Dr. Graham, the department's goal is to transform the paradigm of orthopedic care for patients, physicians, and payors. "Innovation is a core competency at NYU Langone Health, particularly in our department," notes Dr. Graham. "Our department attracts and supports creative thinkers. Harnessing the power of ideas from our gifted colleagues to solve problems and push the frontiers of our specialty will help us to maintain our leadership position in orthopedic surgery, while serving our patients and community."

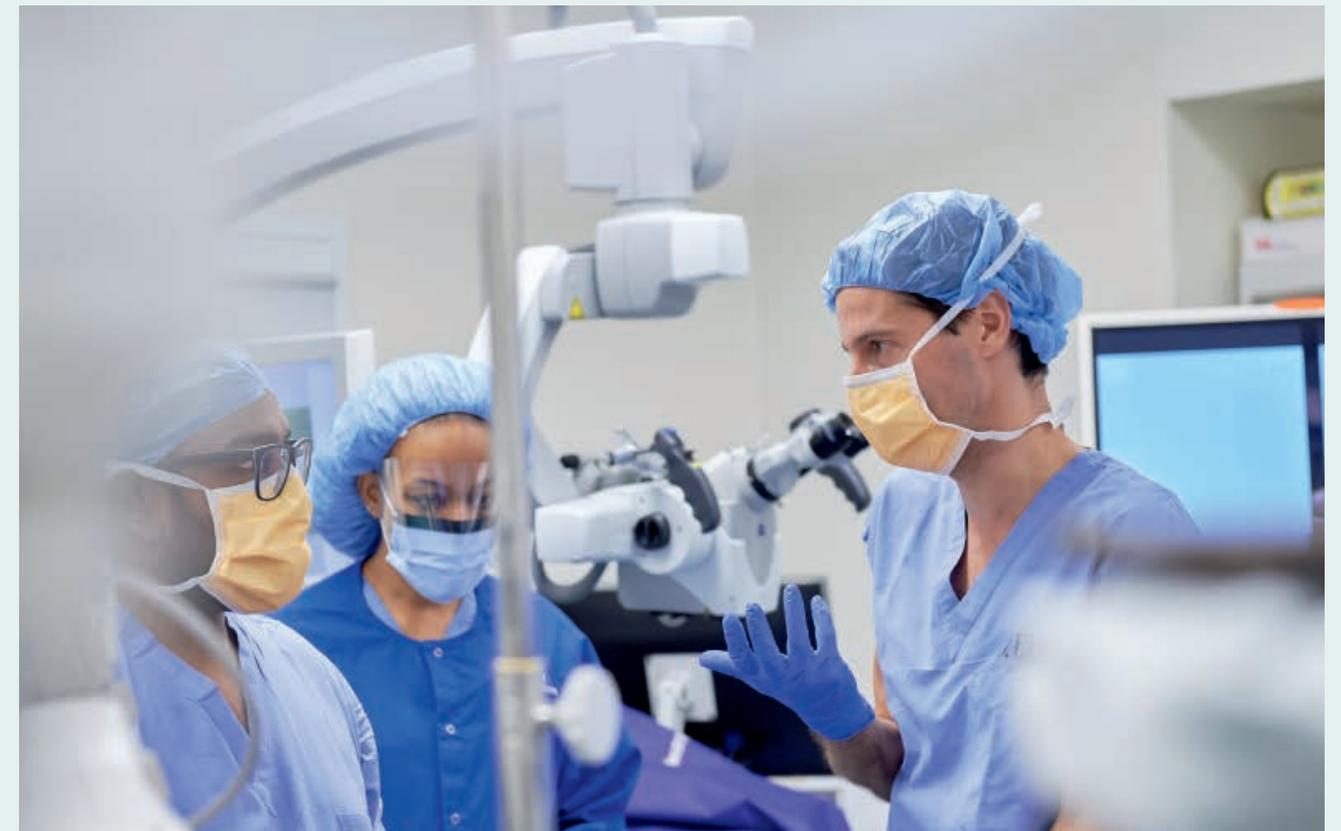
NEW LEADERSHIP IN THE DIVISION OF FOOT AND ANKLE SURGERY

John G. Kennedy, MD, joined NYU Langone Health in early 2019 as chief of the Division of Foot and Ankle Surgery. An international leader in surgery of the foot and ankle who came to NYU Langone from the Hospital for Special Surgery, Dr. Kennedy brings a special interest in articular cartilage injury and joint preservation.

Complex Case

Surgical Collaboration Yields Transformative Outcome for Long-Term Spinal Deformity

When a patient with a history of adolescent idiopathic scoliosis developed proximal junctional kyphosis as a result of previous surgery, she turned to experts at NYU Langone's Spine Center for surgical consultation. The multidisciplinary team, drawing on its extensive neurosurgical and orthopedic expertise in complex spinal reconstructions, developed a radical, innovative surgical solution for her long-standing deformity.



Michael L. Smith, MD (Photo credit: Juliana Thomas Photography)

Complex Case: Surgical Collaboration Yields Transformative Outcome for Long-Term Spinal Deformity

REDESIGNING THE SPINE TO CORRECT A LONG-STANDING DEFORMITY

A 57-year-old woman with a long, complex history of spinal deformity and surgery presented with worsening head drop, neck and upper back pain, numbness, and loss of horizontal gaze. She had undergone Harrington rod placement for scoliosis as an adolescent, later developing proximal junctional kyphosis at T5. Although some improvement was initially achieved with a pedicle subtraction osteotomy (PSO) at T4 with posterior spinal fusion from T1 to T10, subsequent progression of recurrent C7-T1 kyphosis had resulted in severe pain and functional disability.

The patient's major structural problems demanded far more than a traditional PSO, typically done at C7. "The geometry of this bone limits any potential correction," explains Themistocles S. Protopsaltis, MD,

associate professor of orthopedic surgery and neurosurgery. "This patient needed part of the bone removed, the vertebral column resected, and her head repositioned, since her chin had fallen to her chest—and we were able to draw on our extensive body of research to meticulously plan the perfect alignment."

A T2 vertebrectomy with dorsal placement of an expandable cage was identified as the safest approach to correcting the deformity. This nontraditional strategy would help to circumvent the risks of paralysis from spinal cord injury and hand weakness from C8 nerve injury. "With this approach, we could reduce the potential for a disabling neurological injury while increasing the space available for us to fully correct the spinal alignment," says Michael L. Smith, MD, assistant professor of neurosurgery.

CAREFUL PLANNING AND CLOSE COLLABORATION GUIDE DELICATE SPINAL REALIGNMENT

The surgical plan was essentially to reconstruct the patient's failing spine architecture by disconnecting and then reconnecting her cervicothoracic spine.

To begin, the patient was placed in the prone position on the operating table, and the vertebral column was exposed, including the previously placed spine instrumentation. After removal of the rods, previously placed pedicle screws were replaced from T1 to T10 to achieve good purchase and new screws were placed from C2 to C7.

A wide laminectomy was performed, with careful dissection of scar tissue from the dura to expose the thecal sac. Circumferential decompression of the spinal cord allowed visualization of any spinal nerve impingement prior to performing the correction. "Our goal was to ensure that at the critical moment when we did the alignment correction, there would not be any compression that could put the spinal cord at risk," notes Dr. Smith.



Preoperative imaging shows the structural problems causing the patient's functional decline.



Postoperative imaging shows that the deformity has been corrected and the patient now has normal alignment.

Themistocles S. Protopsaltis, MD; Michael L. Smith, MD and Anand Segar, MD (Photo credit: Juliana Thomas Photography)



Temporary stabilizing rods were placed, and the transverse processes were removed before resection of the posterior lateral bony elements and bilateral T2 pedicles. Careful dissection around the T2 vertebral body to the ventral midline was achieved without injury to the soft tissue structures and the great vessels. The vertebrectomy was performed from inferior T1 to the superior T3 endplates, the epidural plane was opened, and the posterior longitudinal ligaments were tamped into the defect. A titanium expandable cage was placed and packed with bone graft harvested from the iliac crest.

To close the osteotomy, the Mayfield head holder was released and repositioned while spinal instrumentation was used simultaneously to apply correction forces. These maneuvers placed the patient's cervicothoracic spine into ideal alignment. A five-rod construct was placed across the vertebrectomy,

with fixation spanning T10 to C2, including C2 pedicle and laminar screws and thoracic pedicle screws. Intraoperative imaging confirmed adequate reconstruction before arthrodesis was performed from C2 to T3. There were no changes in intraoperative neuromonitoring, with motor function confirmed before the patient was extubated and transferred to recovery.

"By taking the correction down to a lower level, we were able to achieve the radical correction needed to address this patient's profound deformity," Dr. Protopsaltis explains. "With our detailed preoperative planning we attained the necessary deformity correction and the anterior column lengthening using a high-grade osteotomy and the expandable device."

SHARED EXPERIENCE REDUCES INTRAOPERATIVE RISK TO CORRECT COMPLEX DEFORMITY

Vertebral column resection is a long and challenging surgical procedure, and the extraordinary complexity of this particular case required a critical combination of expertise, planning, and collaboration in executing the plan. The deformity corrected, the patient now walks with normal alignment and is able to look left and right with a more typical horizontal gaze, without any loss of neurological function.

"In the case of a major spinal deformity and alignment loss like this one, there are no intermediate options—a technically challenging reconstruction drawing upon our shared experience was needed to get her standing upright again," says Dr. Smith. "Fortunately, our experience and expertise enabled us to provide her with a definitive solution."



Predictive Software Helps Optimize Efficient Care for Older Fracture Patients

A new tool developed by orthopedic trauma surgeons at NYU Langone Health is helping to more accurately predict mortality risk, functional outcomes, and costs for geriatric and middle-aged fracture patients.

Sanjit R. Konda, MD

Based on a statistically validated risk algorithm, PersonaCARE supports informed care decisions for a growing patient population.

“We created this software to fill a growing need to better manage orthopedic fracture patients age 55 and older,” says Sanjit R. Konda, MD, clinical assistant professor of orthopedic surgery. “This population has been growing rapidly, and studies show that it is stressing the financial capability of hospitals to provide quality care.”

The heart of PersonaCARE is the Score for Trauma Triage in the Geriatric and Middle Aged (STTGMA), a peer-reviewed algorithm developed by Dr. Konda and colleagues. The software also integrates with hospital accounting systems, enabling it to generate cost predictions.

Orthopedic trauma surgeons at NYU Langone now use PersonaCARE to more accurately predict quality measures, such as length of stay, need for blood transfusion, risk of major and minor complications, and mortality risk, up to one year after a hospital stay for all older hip fracture patients. The system also can predict inpatient and outpatient costs up to 90 days post-discharge.

TOOL ENABLES EARLY DECISION-MAKING

PersonaCARE uses data collected in the emergency department during a standard history and physical examination. Based on physiological variables, including age, medical comorbidities, vital signs, and anatomic injuries, the software calculates a risk score and a cost score, allowing surgeons to promptly initiate appropriate clinical pathways.

“For example, the system might identify that a certain patient has a high cardiac risk, so we can put that patient immediately into a cardiology pathway with an echocardiogram and a cardiology consultation,” Dr. Konda says. “Getting these consultations early makes the entire process more efficient—in fact, it often helps us get hip fracture patients to the operating room within 24 hours.”

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Rather than admitting the patient to a unit where costs will accumulate rapidly, we can offer appropriate care in a less care- and cost-intensive setting.”

—Sanjit R. Konda, MD

APPROACH ALIGNED WITH VALUE-BASED CARE

By more accurately predicting emergency room costs, procedure costs, and inpatient costs for hip fracture patients, PersonaCARE enables physicians to make decisions based on care value.

“A risk profile might show us that a certain patient does not need to spend any time in the ICU and can be safely monitored in either a step-down unit or even a regular room,” says Dr. Konda. “So, rather than admitting the patient to a unit where costs will accumulate rapidly, we can offer appropriate care in a less care- and cost-intensive setting.”

Cost profiles generated by PersonaCARE can predict hospital accounting and loss for an entire 90-day episode of care. According to Dr. Konda, this could help clinicians manage patients under bundled payment programs, such as Medicare’s Bundled Payments for Care Improvement (BPCI) Initiative.

EXPANDING ALGORITHMS TO IMPROVE DATA ACCURACY

Dr. Konda and colleagues are using machine learning techniques to refine PersonaCARE. They recently studied whether the addition of frailty markers—such as existing disability, need of an assistive device, and malnutrition—could improve the software’s underlying algorithms, though they were found to be insignificant in predicting inpatient mortality. “We are going to continually test new markers to see if there is anything we could do to improve on the accuracy we already have,” notes Dr. Konda.

NYU Langone plans to roll out a commercial version of the PersonaCARE platform in 2019. “Our goal is to help more orthopedic surgeons and other trauma specialists deliver value-based care that decreases hospital costs while improving patient outcomes,” he says.

Hip Arthroplasty: New Risk Assessment Tool and High-Risk Pathway Reduce Dislocation Rate Sixfold

Researchers at NYU Langone Health have identified several new risk factors for implant dislocation following total hip replacement surgery, informing the development of a new preoperative screening tool and treatment algorithm to better identify high-risk patients based on these factors.



Aaron J. Buckland, MD, and Ran Schwarzkopf, MD

According to Aaron J. Buckland, MD, clinical assistant professor of orthopedic surgery and director of spine research, the research is rooted in a growing understanding of the spine's role in hip implant stability.

"In the last few years, we have learned that spinal pathologies markedly change the way the pelvis moves during posture changes," Dr. Buckland says. "For example, people with spinal pathologies display much less posterior pelvic tilt when they go from standing to sitting."

This effect is notable in patients with spinal degeneration or spinal deformity and in patients who have undergone previous fusion surgeries. "By reducing the change in posterior pelvic tilt in sitting, these conditions lead to a less protective anteversion acetabular component," he says. "When this happens, it increases the risk of impingement and subsequent implant dislocation."

CALCULATING THE RISK

To explore the impact of spinopelvic mechanics on hip implant stability, Dr. Buckland, and Ran Schwarzkopf, MD, clinical associate professor of orthopedic surgery and colleagues, led a study analyzing 1,082 patients who had total hip replacement surgery in 2014 or 2015. The team identified an overall implant dislocation rate for this group of 1.8 percent; among the 320 patients demonstrating evidence of lumbar spinal degeneration or deformity, the dislocation rate was 3.1 percent.

Based on these data, the researchers developed a dislocation risk prediction model, which was used prospectively to screen patients undergoing hip replacement in 2016. Out of a total of 1,009 patients, 192 individuals were identified as high risk and were treated under a high-risk algorithm.

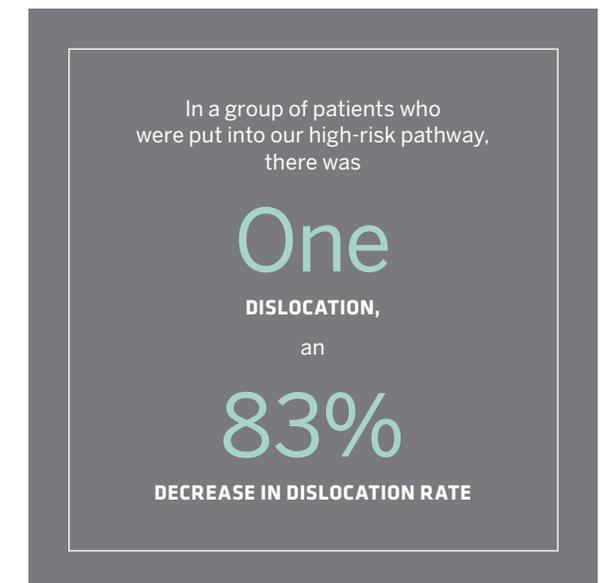
"In the group of patients who were put into our high-risk pathway, there was only one dislocation, which suggests a rate of 0.5 percent," Dr. Buckland says. "Compared to the previous group of patients with spinal pathologies treated with traditional strategies, these results represent a sixfold decrease in the dislocation rate."

ALIGNING RISK WITH NEW CLINICAL PATHWAY

All patients who undergo hip arthroplasty at NYU Langone are now screened with the new risk assessment tool, which then assigns patients to risk categories based on spinal pathology and other recognized risk factors.

"The highest-risk patients are those with severe lumbar spinal degeneration, lumbar flat back deformity, and those who have multiple lumbar fusion levels," Dr. Buckland says.

The screening also takes into account known dislocation risk factors, including age greater than 75 years, female sex, diagnoses such as femoral neck fracture or osteonecrosis, and neurological diseases like Parkinson's or dementia. "These are all intermediate risk factors, but a combination of them can make you a high-risk patient," Dr. Buckland notes. "This group also includes patients who engage in activities that put their hips into more extreme ranges of motion, such as yoga instructors or surfers."



Hip Arthroplasty: New Risk Assessment Tool and High-Risk Pathway Reduce Dislocation Rate Sixfold

Patients categorized as high risk are automatically assigned to the special treatment algorithm, a pathway that begins with a nonstandard imaging plan that more accurately assesses spinopelvic function. While traditional preoperative imaging for hip patients comprises a single anteroposterior (AP) radiograph in the supine position, high-risk patients receive sitting and standing X-rays, in both the AP and lateral views, under the new algorithm. “These additional views provide critical information on functional position, such as how much the pelvis tilts posterior when the patient sits,” Dr. Buckland says.

Radiographic assessment then informs hardware choice. “If the sitting and standing radiographs show very little leeway in both directions, we use a dual mobility implant,” Dr. Buckland continues. “The dual mobility bearing allows increased range of motion and gives the hip replacement more inherent stability.”

The high-risk algorithm also includes advanced intraoperative technologies. “The imaging studies help us plan the optimal position of the cup within the acetabulum, but then we still need to make sure we can achieve that placement during surgery,” he says. “Tools like intraoperative navigation, laser guidance, and robotics help us place the implant precisely where we want it.”

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The high-risk algorithm also includes advanced intraoperative technologies. Tools like intraoperative navigation, laser guidance, and robotics help us place the implant precisely where we want it.”

—Aaron J. Buckland, MD

Best Poster at 2018 AAOS Annual Meeting

“A New Risk-Assessment Score and Treatment Algorithm for Patients at High Risk of Dislocation Following Total Hip Arthroplasty” was selected by the AAOS Central Program Committee as the best poster in the adult reconstruction hip classification at the 2018 AAOS Annual Meeting.

Joseph A. Bosco III, MD, Named Second Vice President of the American Academy of Orthopaedic Surgeons

Joseph A. Bosco III, MD, was named second vice president of the American Academy of Orthopaedic Surgeons (AAOS) board of directors at the organization’s 2018 Annual Meeting. Dr. Bosco is a longtime active member of the AAOS, first elected to its board of directors in 2013. His appointment is the first in a four-year term of volunteer service that will

include Dr. Bosco’s appointment as president of the Academy in 2020–21. In his newly named role, Dr. Bosco will continue to prioritize and respond to the needs of the 38,000 AAOS members, in order to advance the Academy’s objectives all with the end goal of delivering the highest quality care.



Joseph A. Bosco III, MD

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Updates on Indications, Design,
and Surgical Techniques*

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Appointments & Promotions

APPOINTMENTS

Elizabeth Barchi, MD, was appointed clinical assistant professor of orthopedic surgery.

Cordelia W. Carter, MD, was appointed clinical associate professor of orthopedic surgery.

Ellen D. Davis, MD, was appointed clinical assistant professor of orthopedic surgery.

Thomas J. Graham, MD, was appointed associate professor of orthopedic surgery.

June V. Halsey, MD, was appointed clinical assistant professor of orthopedic surgery.

Julie S. Han, MD, was appointed clinical assistant professor of orthopedic surgery.

John G. Kennedy, MD, was appointed professor of orthopedic surgery.

Tina Raman, MD, was appointed assistant professor of orthopedic surgery.

ADMINISTRATIVE APPOINTMENTS

Thomas J. Graham, MD, associate professor of orthopedic surgery, has been appointed director of strategic planning and orthopedic innovation.

John G. Kennedy, MD, professor of orthopedic surgery, has been appointed chief of Division of Foot and Ankle Surgery.

William B. Macaulay Jr., MD, professor of orthopedic surgery, has been appointed chief of Division of Adult Reconstruction.

Themistocles Protopsaltis, MD, associate professor of orthopedic surgery and neurosurgery, has been appointed chief of Division of Spine Surgery.

PROMOTIONS

Michael C. Gerling, MD, was promoted to clinical associate professor of orthopedic surgery.

Heather Gold, PhD, was promoted to professor of population health and orthopedic surgery.

Yong H. Kim, MD, was promoted to clinical associate professor of orthopedic surgery.

Claudette M. Lajam, MD, was promoted to associate professor of orthopedic surgery.

Michael E. Rettig, MD, was promoted to clinical professor of orthopedic surgery.

Jeffrey M. Spivak, MD, was promoted to clinical professor of orthopedic surgery.

NYU Langone Health



#15

IN THE NATION

and nationally ranked in 12 specialties



#3

IN THE NATION

Best Medical Schools for Research



5

CONSECUTIVE YEARS

of top ranking for overall patient safety and quality of care

ANNOUNCING

Tuition-Free Initiative Addresses High Student Debt

NYU School of Medicine announced in August 2018 that it will begin offering full-tuition scholarships to all current and future students in its MD degree program regardless of need or merit—a bold effort to simultaneously address the rising costs of medical education and still attract the best and brightest students to careers in medicine. “This decision recognizes a moral imperative that must be addressed, as institutions place an increasing debt burden on young people who aspire to become physicians,” says Robert I. Grossman, MD, the Saul J. Farber Dean of NYU School of Medicine and CEO of NYU Langone Health.



(Photo credit: Juliana Thomas Photography)



Visit med.nyu.edu/school for more information.

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