

**OUR COVID-19
EFFORTS**

Read about NYU Langone Health's response to the challenges of the COVID-19 pandemic. *See insert.*



Urology

2020 HIGHLIGHTS

**Improving Outcomes
For Older Patients with
Early-Stage Bladder Cancer**

See page 1.

**Assessing Prostate Cancer
Diagnostics
After Partial-Gland Cryoablation**

See page 5.

**Surgical Quality
Improving Outcomes and
Reducing Complications for
Transgender Women**


See page 6.



HERBERT LEPOR, MD

Professor, Urology and Biochemistry and
Molecular Pharmacology
Martin Spatz Chair, Department of Urology
Chief, Urology

**MESSAGE
FROM
THE CHAIR**



Despite the challenges of the pandemic, NYU Langone's urology faculty has continued to make great strides in understanding the mechanisms underlying urological diseases and advancing treatments.

Among our many bench-to-bedside advances, our department is at the forefront of exploring new options for the screening, detection, and treatment of prostate cancer. Our researchers' recent findings led the International Agency for Research on Cancer to classify acrolein, prevalent in tobacco smoke and industrial products, as a major carcinogen—a finding with important public health implications.

Other advances include innovations in reconstructive surgery, new findings for managing early-stage bladder cancer in older adults, as well as guidance on the role of early biopsy after partial-gland cryoablation (PGCA).

Read on to learn more about our achievements and their potential impact on patient care.



Top 15

IN U.S. NEWS &
WORLD REPORT

#4

IN NIH FUNDING
FOR UROLOGY

1 in 8

PRACTICING
U.S. UROLOGISTS HAVE
ATTENDED NYU LANGONE
FOR POSTGRADUATE
EDUCATION



◀ A retrospective study led by NYU Langone urologists highlights the need for better education on appropriate use of Bacillus Calmette-Guérin to improve outcomes for patients with bladder cancer.
PHOTO: JOSE LUIS PELAEZ INC/GETTY

Many Older Patients Not Getting Recommended Treatment for Early-Stage Bladder Cancer

The majority of patients diagnosed with bladder cancer have early-stage non-muscle-invasive disease that often can be successfully treated. However, these cancers have a high recurrence rate compared with other solid tumors, and about 20 percent of recurrences progress to more serious muscle-invasive disease.

FEWER THAN ONE QUARTER OF ELIGIBLE OLDER PATIENTS RECEIVE BACILLUS CALMETTE-GUÉRIN

Transurethral resection of bladder tumor followed by Bacillus Calmette-Guérin (BCG)—a type of intravesical immunotherapy—is the gold standard of treatment for early-stage bladder cancer, recommended by U.S. and European clinical guidelines. However, studies suggest that fewer than one quarter of eligible older patients receive BCG in practice.

A recent analysis co-authored by NYU Langone's Gary D. Steinberg, MD, professor in the Department of Urology at NYU Langone and director of the Goldstein Urology Bladder Cancer Program at Perlmutter Cancer Center, examines

treatment patterns and associated outcomes for patients with early-stage disease included in Medicare's U.S. Surveillance, Epidemiology, and End Results (SEER) database. Researchers observed that half of patients with intermediate- and high-risk disease did not receive BCG treatment according to guidelines, despite evidence that it improves outcomes.

Dr. Steinberg is a nationally recognized expert in the surgical management of bladder cancer and currently leads several large clinical trials investigating new medications and treatment procedures. His research includes examining the critical need for new agents for patients who are not responsive to BCG therapy or develop resistance to it. For example, one ongoing phase III study is evaluating the immune checkpoint inhibitor pembrolizumab in combination with BCG to potentially improve outcomes and prevent disease recurrence.

WIDE VARIATION IN USE OF BCG

The recent study by Dr. Steinberg and colleagues reveals wide variations in BCG treatment intensity. Many eligible patients did not receive BCG at all, and among those who did, it was often inadequate, stopping short of ongoing maintenance therapy. Conversely, some patients with low-risk disease received the treatment despite a lack of guideline support.

The retrospective analysis included 39,532 patients over age 65 with early-stage (0-1) urothelial bladder carcinoma diagnosed between 2000 and 2012, according to findings published in July 2020, in *Urology*. Of the 41 percent who received BCG treatment, only 28.4 percent received adequate therapy. However, at the 12-month point, adequate BCG treatment was associated with decreased risks of recurrence and of cancer-specific and all-cause mortality in patients with intermediate- and high-risk disease.

Although the analysis was not equipped to identify the reasons for such variation, investigators speculated that physicians might be reluctant to give BCG to patients with a high comorbidity burden or other, unknown contraindications. They observed that inadequately treated patients tended to be less healthy than those who received sufficient treatment.

“There seems to be a mismatch in treatment intensity based on disease risk, with many patients receiving too much or too little care,” says Dr. Steinberg. “Overuse of BCG in patients with low-grade disease is also concerning, considering that BCG is in short supply worldwide.”

Practice patterns may also vary according to location, as the study spanned both academic and community care settings, the authors noted. In addition, the analysis does not capture other factors that may have contributed to variability,

such as patient refusal of treatment or adverse events that triggered an interruption in treatment.

That said, the study highlights the need for education on appropriate use of BCG, says Dr. Steinberg. In particular, it emphasizes the importance of maintenance therapy, which was not taken into account in several previous studies that did not find an association between treatment intensity and improved survival.

“Our data make it clear that adequate BCG treatment is associated with lower mortality from bladder cancer, especially for patients with higher-risk disease,” he says. “It also stresses the critical role of maintenance BCG in further reducing recurrence and improving survival.” ■

\$7 MILLION

IN CONTINUING FUNDING

FROM A 5-YEAR BLADDER
CANCER PROGRAM PROJECT
GRANT FROM THE NATIONAL
CANCER INSTITUTE



Disclosures: Gary D. Steinberg, MD, is a member of clinical trial protocol committees for Merck, BMS, Janssen, Cold Genesys, Pfizer, PhotoCure, and Fidia. He is currently or has been a scientific advisor/consultant within the past five years for Heat Biologics, Cold Genesys, PhotoCure, Merck, Roche/Genentech, Ciclomed, Taris Biomedical, MDxHealth, Fidia Pharmaceuticals, UroGen, Ferring, Aduro, Boston Scientific, Bristol-Myers Squibb, AstraZeneca, Pfizer, Janssen, EpiVax Oncology, Natera, FKD Therapies Oy, Ferring, enGene Bio, Sesen Bio, BioCanCell, Nucleix, Ipsen, Combat Medical, Astellas, FerGene, Dendreon, AbbVie, and Seattle Genetics. Dr. Steinberg has equity stock/options in EpiVax Oncology and UroGen.

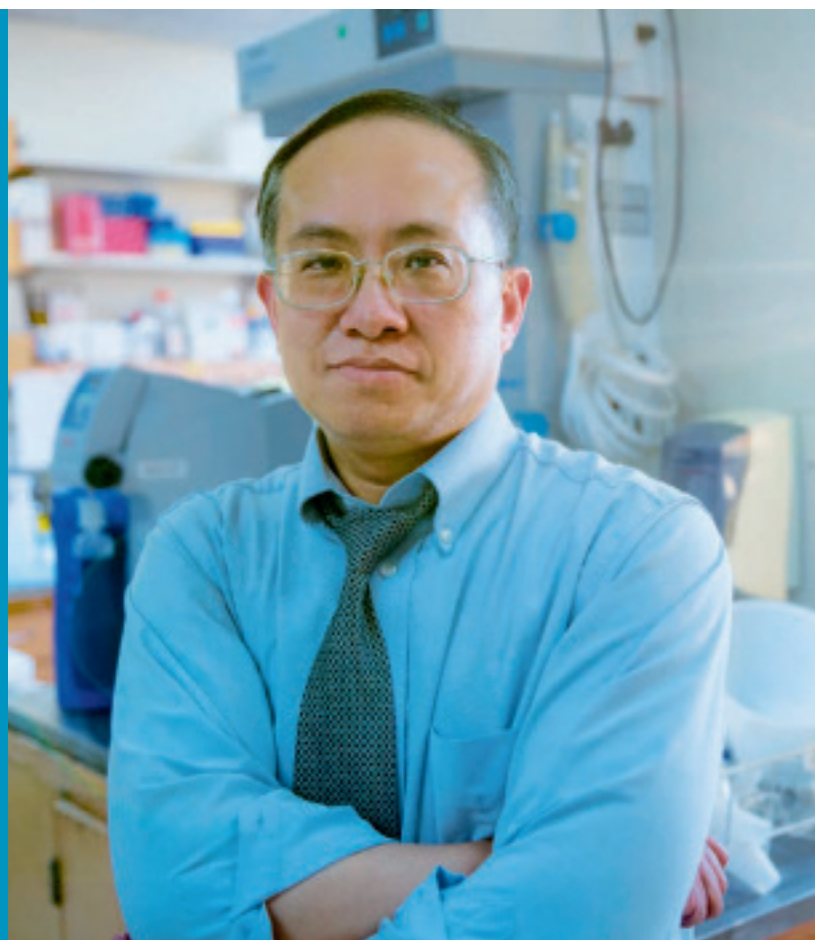
Highlighting the Value of Genetic Modeling of Bladder Cancer

Is genetic modeling of bladder cancer still useful in the post-Human Genome Project era? The answer is a resounding yes, according to NYU Langone's Xue-Ru Wu, MD, the Bruce and Cynthia Sherman Professor of Urological Research and Innovation and vice chair of urological research, in a special supplement on bladder cancer published in 2020 in *Clinical Cancer Research* by the American Association for Cancer Research.



For more on this story and other topics, visit nyulangone.org/urology2020

Xue-Ru Wu, MD





Transplant recipients can be safely screened for prostate cancer and the condition managed under general guidelines, reports urologic oncologist Herbert Lepor, MD.
PHOTO: KARSTEN MORAN

Immunotherapy After Transplant Does Not Raise Men's Risk for Prostate Cancer

Prostate-specific antigen (PSA) appears to be as reliable for prostate cancer screening of transplant candidates and recipients as it is for the general population.

TRANSPLANT PATIENTS FACE AGE-RELATED HEALTH ISSUES

Rapid advancement in treatment and surgical techniques for solid organ transplant means many transplant recipients—about half of whom are over age 50—now live well past middle age.

As a result, men who receive kidney, liver, and heart transplants are facing issues related to aging, including screening and treatment for prostate cancer. The potential impact of immunosuppression on tumor biology should always be considered in men who are candidates for or who have had a solid organ transplant. In the past, there has been controversy over whether immunotherapy associated with transplant increases men's risk for prostate cancer, as it does with other solid malignancies. However, there is no compelling evidence that immunosuppression affects development of prostate cancer, according to a review published in *Reviews in Urology* led by Herbert Lepor, MD, professor of urology, the Martin Spatz Chair of the Department of Urology and chief of urology at NYU Langone. Dr. Lepor is also director of Smilow Comprehensive Prostate Cancer Center, part of Perlmutter Cancer Center at NYU Langone.

“The effectiveness of immunotherapy appears to be related to the mutational load of the disease, and

prostate cancer has a low level of mutation,” says Dr. Lepor. “It appears that prostate-specific antigen screening is as reliable in transplant candidates as in the general population and that most patients can be safely screened and managed under the usual standards of care.”

PROSTATE CANCER SCREENING AND DETECTION

Current guidelines from the American Society of Transplantation recommend prostate cancer screening for all male transplant candidates or recipients age 50 or older with a life expectancy of at least 10 years—the same as for the general population. The recommendation is based on studies showing that while transplant is associated with higher rates of certain malignancies—particularly bladder and kidney cancer and melanoma—it does not appear to affect development of prostate cancer.

At NYU Langone, PSA screening is mandatory for transplant candidates according to current guidelines. However, research indicates that screening is inconsistent nationwide, according to the review. One study found that PSA screening recommendations were followed for only 64 percent of patients at a high-volume transplant center, and another survey of major U.S. transplant centers found that only 79 percent had established guidelines for PSA screening.

“Prostate cancer screening saves lives, especially in men who have clinically significant cancers,” notes Dr. Lepor. “NYU Langone has pioneered the use of biomarkers, MRI, and MRI-guided biopsy to improve the sensitivity and specificity of PSA screening for the detection of significant disease. It’s best to identify prostate cancers before kidney transplant in particular, as kidney transplant can increase the technical challenges of a radical prostatectomy.”

PSA level appears to be a reliable indicator of risk, even for men with end-stage kidney disease (ESKD) and liver failure, researchers found. However, certain factors should be taken into account for transplant patients.

Clinicians treating men with ESKD should consider measuring PSA before hemodialysis, which can result in elevated values, the authors suggest. They also note that PSA testing may not be reliable in men with severe liver failure as the liver metabolizes PSA and values are often lower in patients with cirrhosis compared with the general population. As a precaution, they recommend testing before and after liver transplant.

For men with concerning PSA levels, along with other risk factors such as family history, NYU Langone urologists routinely order multi-parametric MRI (mpMRI), which has been shown

to detect aggressive disease more reliably than systemic biopsy.

In the presence of elevated biomarkers, patients with a PI-RADS (Prostate Imaging Reporting and Data System) score of 2 or higher should receive mpMRI fusion target biopsy with a bilateral systemic biopsy, the authors state. Transperineal saturation biopsy is recommended for those with a PI-RADS score of 1 and a PSA velocity and biomarkers highly suspicious for aggressive cancer.

PROSTATE CANCER TREATMENT CONSIDERATIONS

In general, clinicians can safely manage transplant patients with diagnosed prostate cancer similarly to the general population, using shared decision-making to guide treatment decisions and taking into account life expectancy, comorbidities, complications, and impact on quality of life.

However, controversy persists around the timing of transplants following prostate cancer treatment, notes Robert Montgomery, MD, DPhil, the H. Leon Pachter, MD, Professor of Surgery, and newly appointed chair of the Department of Surgery. Current kidney transplant guidelines suggest waiting two years, but that timing has been challenged by Kidney Disease Improving Global Outcomes guidelines, which recommend proceeding immediately after successful treatment.

“Most recommendations for delaying transplant are based on small studies and do not show an association between having prostate cancer and increased mortality,” says Dr. Montgomery. “However, prolonging wait times for transplant could adversely impact survival.”

At NYU Langone, urologists recommend immediate transplant following definitive treatment for low- to intermediate-risk prostate cancer and waiting one year in the case of higher-risk disease if PSA is undetectable.

If prostate cancer is diagnosed after transplant, evidence supports performing open or laparoscopic radical prostatectomy. Large studies involving patients diagnosed following kidney transplants indicate that PSA scores, severity of disease, and postsurgical complications are on par with those in the general population, the review found, although special care must be taken to avoid damage to transplanted organs from surgery and radiation.

“Overall, we found that while precautions should always be taken in this vulnerable population, most transplant patients can be successfully managed under general guidelines,” says Dr. Lepor. “Screening, detection, or treatment should not be influenced by the impact of immunosuppression on the biology of the disease.” ■

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It appears that prostate-specific antigen screening is as reliable in transplant candidates as in the general population and that most patients can be safely screened and managed under the usual standards of care.”

—Herbert Lepor, MD

Clinical Trials and Research Studies

At NYU Langone Health, our doctors and researchers perform clinical trials and research studies with the aim of translating findings into new, more effective treatments.



To learn more information about clinical trials, visit clinicaltrials.med.nyu.edu

Six-Month Oncological Outcomes Following Partial-Gland Cryoablation at NYU Langone Extremely Favorable

Routine Biopsy Should Be Discouraged at Six Months After PGCA



James S. Wysock, MD

OPTIMIZING QUALITY OF LIFE FOR MEN WITH LOCALIZED PROSTATE CANCER

Partial-gland cryoablation (PGCA)—destroying cancerous tissue within the prostate while sparing surrounding normal tissue—has significant quality-of-life advantages for men with localized prostate cancer. Compared with radical prostatectomy, the procedure is associated with faster recovery, fewer complications, and lower cost. However, controversy remains about how best to monitor patients for new or recurring disease.

In a recent study, researchers at NYU Langone's Department of Urology and Perlmutter Cancer Center sought to assess the usefulness of prostate-specific antigen (PSA) testing, MRI, and biopsy in detecting in-field disease six months after PGCA. Their results suggest that early follow-up isn't justified in the overwhelming majority of cases. In the study cohort of 70 patients with prostate cancer, significant disease was detected in only 1, and neither PSA nor MRI was a reliable predictor of persistence.

"Based on our data, six months may be too soon to identify disease persistence," says lead author James S. Wysock, MD, a urologic oncologist at the Smilow Comprehensive Prostate

Cancer Center and assistant professor in the Department of Urology at NYU Langone. "It's possible that PSA and MRI may prove to be more useful predictors at longer follow-up if the detection rates of prostate cancer increase."

BIOPSY REVEALS LOW RATE OF DISEASE AT SIX MONTHS

In a recent study published in *Prostate Cancer and Prostatic Diseases*, researchers analyzed outcomes for 70 men who underwent PSA testing, MRI, and prostate biopsy at NYU Langone 6 months after PGCA, the standard protocol recommended by expert consensus statements. Five patients (7.1 percent) showed disease persistence according to biopsy results; of these, 4 cases were considered low risk (Gleason grade group 1) and clinically insignificant.

"We are monitoring our PGCA outcomes with a robust treatment registry and are encouraged that the six-month biopsy results demonstrate a remarkably low rate of cancer in the ablation zone, bolstering our confidence in the accuracy of our ability to target and treat the disease," says Dr. Wysock.

The results are not necessarily generalizable to all patients as favorable outcomes following PGCA are associated with treatment at high-volume centers with extensive experience and expertise in treating prostate cancer. However, the findings suggest that biopsies at six months are unnecessary and should not be performed automatically.

PSA AND MRI UNRELIABLE PREDICTORS OF CANCER PERSISTENCE AT SIX MONTHS AFTER PROSTATE BIOPSY

Investigators also ascertained the usefulness of measuring PSA and MRI and found that neither reliably predicted localized cancer persistence. None of the patients in the study showed an

increase in PSA, and changes in PSA did not correlate with cancer detection. Similarly, MRI scan results did not necessarily correlate with disease detection on biopsy.

Over the six-month follow-up period, changes in PSA were highly variable, researchers reported. Of 6 men who experienced declines of less than 25 percent in PSA, only 1 had prostate cancer, suggesting that modest changes in PSA do not correspond with higher rates of disease at 6 months. Of 7 MRI scans with suspicious results, only 1 was associated with cancer, while 4 out of 63 non-suspicious scans showed cancer.

The authors noted that low rates of persistent disease at six months are not necessarily predictive of disease control at two years. In a previous study, 25 percent and 22 percent of men showed Gleason grade 1 and >1 cancers, respectively, after 2 years, compared with only 12.5 percent showing any disease at 6 months.

On the basis of these observations, NYU Langone urologists no longer recommend that patients automatically receive MRI or biopsy at six months, says the study's senior author, Herbert Lepor, MD, professor and the Martin Spatz Chair of the Department of Urology at NYU Langone. Risk of new cancers and disease recurrence will be assessed after two years using MRI fusion target biopsy of the ablation zone and 12-core systematic biopsy.

"We believe a six-month MRI and biopsy is too soon to identify disease persistence among carefully selected cases performed by experienced surgeons," says Dr. Lepor. "In appropriately selected patients, biopsy can be safely delayed up to two years." However, an early multiparametric MRI and prostate biopsy are advisable for surgeons and centers early on their learning curve, adds Dr. Lepor. ■

“

It's possible that PSA and MRI may prove to be more useful predictors at longer follow-up if the detection rates of prostate cancer increase.”

—James S. Wysock, MD



Surgeons at NYU Langone use robotic surgery platforms to improve visualization and maneuverability while performing complex procedures such as vaginoplasty, ensuring their patients receive the highest-quality gender-affirming care.

New Robotic Systems Have Potential to Improve Outcomes and Reduce Complications for Transgender Women

Platform Improves Visualization and Maneuverability for Surgical Team

MULTIDISCIPLINARY TEAM TAILORS GENDER-AFFIRMING PROCEDURES TO THE INDIVIDUAL

NYU Langone’s multidisciplinary transgender program takes a personalized approach to care of patients with gender dysphoria, centered on the individual patient’s objectives, life circumstances, and comorbidities. Highly trained faculty tailor gender-affirming procedures to meet the individual goals and expectations of each person.

Robotic surgery eases some of the technical challenges of gender-affirming surgery, allowing surgeons greater visibility and reach within the confines of the pelvic cavity. NYU Langone is one of only a few such surgery programs in the country that uses a robotic platform for complex procedures such as vaginoplasty, or reconstruction of the vagina, in eligible transgender women.

Many transgender women are interested in vaginoplasty, and demand has risen in recent years, according to an article led by Rachel Bluebond-Langner, MD, the Laura and Isaac Perlmutter Associate Professor of Reconstructive Plastic Surgery in the Hansjörg Wyss Department of Plastic Surgery, and

Lee C. Zhao, MD, associate professor in the Department of Urology and the Hansjörg Wyss Department of Plastic Surgery, published online July, 2020, in *European Urology*. Currently, the most commonly used procedure is penile inversion vaginoplasty, which encompasses neovaginal cavity creation, clitoroplasty, labiaplasty, corpora cavernosa reduction, orchiectomy, and urethroplasty.

However, advanced robotic platforms offer the potential to create full vaginal depth in shorter operating times while minimizing complications. Since 2017, NYU Langone surgeons have performed hundreds of robotic-assisted peritoneal flap gender-affirming vaginoplasties and recently adapted their technique for a state-of-the-art single-port system introduced in 2018.

SINGLE-PORT PLATFORM SHORTENS OPERATING TIME

Robotic surgery is a viable alternative to penile inversion in most vaginoplasty candidates, according to the study, and is especially advantageous for patients with limited genital skin. The robotic platform

allows surgeons to create a well-vascularized neovaginal apex or vault.

Compared with the original multi-arm robot system, single port offers several other potential advantages, including shorter operating time, the authors say. In addition, surgeons report having better visualization using the newer platform and more room to operate as a team in a narrow space compared with using a multi-arm system, where the lateral arms tend to clash with the walls of the canal as dissection progresses.

Dr. Zhao and colleagues describe the single-port technique in detail and compare patient outcomes for single versus multi-arm procedures. Surgery time was shorter with single port (3.7 versus 4.2 hours) while both systems produced comparable vaginal depth (14.1 cm single port; 13.6 cm multi-arm) and width (3.7 cm), based on a retrospective review of 145 patients.

Surgeons reported that the single-port platform offered more freedom of movement during deep dissection and intracorporeal suturing, the authors say. In addition, an articulating camera provided better visualization for canal dissection.

“Despite the surgical learning curve one might expect with using a new system, we saw significantly shorter operating times with the single port,” says Dr. Zhao. “That’s important because we know that longer operating time is a risk factor for positioning-related complications, such as neuropathy, which did not occur in the cohort we studied.”

MORE LONG-TERM DATA NEEDED

The current study is the longest published follow-up of patients who have received robotic-assisted peritoneal flap gender-affirming vaginoplasty, the authors note. They stress that more research is needed on this relatively new procedure to assess longer-term outcomes, such as stabilization of vaginal depth over time.

“Ultimately, more data are needed to establish the complication rates and durability of this procedure,” says Dr. Zhao. “However, this study establishes the single-port robotic system as a safe alternative to traditional penile inversion that allows for shorter operative time and excellent outcomes even in patients with limited genital tissue.” ■

MRI Strategy Leads to Fewer Biopsies and Reduces Detection of Low-Risk Prostate Cancers

Pre-Biopsy MRI May Help Avoid Overtreating Low-Grade Cancer

NEW STUDY TESTS MRI-TARGETED PROSTATE BIOPSY STRATEGY OF NATIONAL TRIAL

Use of MRI in men for whom there is clinical suspicion of prostate cancer, followed by MRI-targeted prostate biopsy, has been shown to improve detection of clinically significant prostate cancers warranting therapy. Additionally, its use reduces detection of low-risk cancer unlikely to harm, thereby potentially avoiding unnecessary biopsies in men not likely to have significant cancers. Pre-biopsy MRI can also reduce over-detection and subsequent overtreatment of low-grade cancers.

An influential multicenter study, dubbed the PRECISION trial, compared MRI-targeted versus standard systematic biopsy in 500 men with elevated prostate-specific antigen (PSA) levels who had not previously had a biopsy. Among men randomized to MRI-targeted biopsy, only those with intermediate to very high suspicion for cancer, based on PI-RADS (Prostate Imaging Reporting and Data System) scores of 3 or higher, were recommended for biopsy.

As a result, just over one quarter of men avoided a biopsy altogether. Further, compared with standard biopsy, MRI-guided biopsy detected more clinically significant cancer and less low-grade

cancer. However, because not all men in the trial were biopsied, there remains uncertainty around the number of cancers that were missed in men receiving only MRI-targeted biopsy.

To demonstrate the generalizability of the PRECISION findings, a multidisciplinary investigative team at NYU Langone sought to apply the PRECISION biopsy strategy to an institutional study in which all patients had MRI-targeted and systematic biopsy. The study, published October 7, 2020, in *The Journal of Urology*, was led by Samir Taneja, MD, the James M. Neissa and Janet Riha Neissa Professor of Urologic Oncology and vice chair in the Department of Urology at NYU Langone. Dr. Taneja is also a professor in NYU Langone's Department of Radiology, a professor of biomedical engineering at NYU Tandon School of Engineering, and leader of the Genito-Urologic Program at Perlmutter Cancer Center. He is also co-director of the Smilow Comprehensive Prostate Cancer Center and director of the Division of Urologic Oncology. The study was performed in collaboration with first author Zachary Feuer, MD, the primary authors of the PRECISION study, and the PRECISION study group.

According to the findings, application of the PRECISION strategy resulted in cancer detection and biopsy avoidance rates in

629 patients receiving diagnostic biopsy at NYU Langone as similar to those reported in the original PRECISION trial. Application of the strategy avoided biopsy in 28 percent of men with nonsuspicious MRI and reduced low-grade cancer detection by 60 percent, while also missing 19 percent of clinically significant cancers.

PRECISION STRATEGY AVOIDS DETECTION OF LOW-RISK DISEASE

Missed clinically significant cancers in men enrolled in the NYU Langone study were most often smaller volume and lower risk (typically <6 mm or Gleason grade 2), compared with those cancers identified on biopsy, the investigators noted.

"Clinically significant cancers we miss are most often small and minimally aggressive as compared to cancers found on MRI targeting," says Dr. Taneja, the study's senior investigator. "This calls into question the concern of missing such cancers as they may carry a lower likelihood of harm to the patient if untreated."

Small or low-risk cancers may ultimately be detected in clinical follow-up if patients' PSA levels become concerning, adds Dr. Taneja.

One limitation of the study is that only those perceived to be at higher clinical risk had a biopsy, while some with low-risk MRI (PI-RADS 1 or 2) did not, researchers note. As a result, it's likely that the percentage of clinically significant cancers missed could be substantially lower than 19 percent if all men with low-risk MRI were biopsied.

DIAGNOSTIC DILEMMA FOR UROLOGISTS

The PRECISION trial demonstrates that use of pre-biopsy MRI risk stratification, followed by MRI-targeted biopsy alone in men with PI-RADS scores of 3 or higher on MRI, results in increased detection of clinically significant cancer and decreased detection of low-risk cancers, relative to systematic biopsy alone, the investigators conclude. However, they note that the NYU Langone cohort findings were more in line with subsequent large studies showing that clinically significant cancer



Samir Taneja, MD

detection did not differ between MRI-targeted and systematic biopsy, but also that the combination of both significantly improved detection of higher-risk cancers.

“There is no question that MRI-targeted biopsy has dramatically improved our detection pathways. Through a combination of MRI and markers, we are able to greatly improve our ability to distinguish clinically significant cancers,” says urologic oncologist Stacy Loeb, MD, a professor in the Departments of Urology and Population Health at NYU Langone and a member of Perlmutter Cancer Center.

The NYU Langone study findings additionally suggest that cancer identified on systematic but not MRI-targeted biopsy is in many cases reflective of biopsy targeting error, which may be related to

either technique or learning curve, says co-author Andrew B. Rosenkrantz, MD, professor of radiology and urology and director of prostate imaging at NYU Langone.

“The negative predictive value of MRI for clinically significant prostate cancer varies with biopsy intensity, disease prevalence, and radiologist experience,” says Dr. Rosenkrantz. “Our results, when applying the PRECISION strategy, are heavily influenced by radiology and biopsy experience. At NYU Langone, we have observed a negative predictive value of 98 percent.”

Ultimately, the findings point to a diagnostic dilemma for urologists, notes Dr. Taneja. “By applying the PRECISION biopsy strategy, we avoid detection of low-grade cancers, which is desirable, but we risk missing a smaller subset of clinically

significant cancers, which is undesirable,” he explains. “Because the missed clinically significant cancers are small and generally lower risk, this may be a reasonable trade-off to avoid overdetection.” ■

Disclosures: Samir Taneja, MD, receives consulting fees from Trod Medical, Francis Medical, INSIGHTEC, and Janssen; is a scientific investigator for MDxHealth; and receives royalties from Elsevier.

Continuing Medical Education

SAVE THE DATE

April 23, 2021

Bladder Cancer Symposium: Update on Medical and Surgical Management for the Urologist

Course Director: Gary D. Steinberg, MD

Location: Virtual Webinar

June 11–12, 2021

Advances in Screening, Detection, and Treatment of Prostate Cancer

Course Director: Herbert Lepor, MD

Location: Virtual Webinar

Jan 21–22, 2022

Surgical, Pharmacological, and Technological Advances in Urology

Course Director: Herbert Lepor, MD



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Selected Publications

Becher E, Wang A, Lepor H. Prostate cancer screening and management in solid organ transplant candidates and recipients. *Rev Urol.* 2019;21(2-3):85-92.

Dy GW, Jun MS, Blasdel G, Bluebond-Langner R, Zhao LC. Outcomes of gender affirming peritoneal flap vaginoplasty using the Da Vinci Single Port versus Xi Robotic Systems. *Eur Urol.* 2020 Jul 2:S0302-2838(20)30469-3. Epub ahead of print.

Feuer Z, Meng X, Rosenkrantz AB, Kasivisvanathan V, Moore CM, Huang R, Deng FM, Lepor H, Wysock JS, Huang WC, Taneja SS. Application of the PRECISION trial biopsy strategy to a contemporary MRI-targeted biopsy cohort: how many clinically significant prostate cancers are missed? *J Urol.* 2020 Oct 7:101097JU0000000000001406. Epub ahead of print.

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Wysock JS, Becher E, Persily J, Loeb S, Lepor H. Concordance and performance of 4Kscore and SelectMDx for informing decision to perform prostate biopsy and detection of prostate cancer. *Urology.* 2020 Jul;141:119-124. Epub 2020 Apr 12.

Awards & Recognition

Benjamin M. Brucker, MD, authored an article on urinary incontinence that was selected by *BJUI* as an article of the month.

David S. Goldfarb, MD, is on the editorial boards of the *Clinical Journal of the American Society of Nephrology*, *Journal of the American Society of Nephrology*, *Kidney International*, and *Urolithiasis*. He currently serves on the medical advisory board of the National Kidney Foundation of Greater New York and the Oxalosis and Hyperoxaluria Foundation and was a past president of both the Research on Calculus Kinetics (R.O.C.K.) Society and the New York Society of Nephrology.

Frederick A. Gulmi, MD, served on the AUA Board of Directors as the NY Section Representative to the AUA Board of Directors.

Jamie A. Kanofsky, MD, continues to serve as director of the Urology Residency Program at NYU Grossman School of Medicine.

Herbert Lepor, MD, is a co-founder and the current editor of *Reviews in Urology* and is on the editorial board of *Urology*.

Richard S. Matulewicz, MD, was nominated and will be an incoming member of the AUA Data Committee.

Samir Taneja, MD, the James M. Neissa and Janet Riha Neissa Professor of Urologic Oncology, is on the editorial board of several journals, including serving as the consulting editor of the *Urologic Clinics of North America*. He is an oral examiner for the American Board of Urology, a member of the Society of Urologic Oncology Board of Directors as Membership Committee Chair, and is an elected member of the American Association of Genitourinary Surgeons. He is also a recognized innovator in the field of prostate cancer focal therapy and editor of the textbook *Taneja's Complications of Urologic Surgery: Prevention and Diagnosis*.

Moon-Shong Tang, PhD, Xue-Ru Wu, MD, and Herbert Lepor, MD, the Martin Spatz Chair of Urology, led research that prompted the International Agency for Research on Cancer (IARC) to recently classify acrolein, prevalent in tobacco smoke and industrial products, as a major carcinogen—a finding with important public health implications.



Stacy Loeb, MD, MSc, PhD (Hon), was awarded the 2021 American Urological Association (AUA) Gold Cystoscope Award. This award is given annually to a urologist distinguished by outstanding contributions to the profession within 10 years of completing residency. She also received an honorary doctorate from Uppsala University in Sweden in January 2020 for her contributions to prostate cancer research. In addition to her clinical practice, Dr. Loeb currently has grants from the Department of Defense and the Prostate Cancer Foundation, serves on five editorial boards and the AUA Public Media Committee, and hosts the *Men's Health Show* on SiriusXM satellite radio.

ABOUT NYU LANGONE HEALTH

Leader in Quality

NYU Langone's emphasis on continuous improvement inspires teams to continually raise the bar on quality and safety across our growing network in Manhattan, Brooklyn, Queens, Long Island, Staten Island, and Florida. NYU Langone's Tisch Hospital, Kimmel Pavilion, NYU Langone Hospital—Brooklyn, and NYU Langone Hospital—Long Island were awarded an "A" as well as a Top Hospital award as part of the fall 2020 Leapfrog Hospital Safety Grades. NYU Langone Hospitals achieved Five Star ratings on CMS Hospital Compare effective October 2019 and is the only major academic medical center in the New York metropolitan region to attain a Five-Star Quality rating.



#9

in the Nation

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#4

in the Nation



Transforming Medical Education

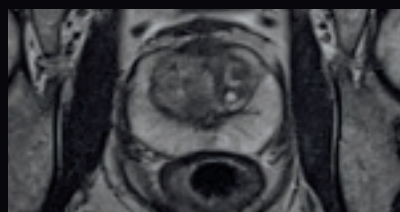
As COVID-19 has added new urgency to nationwide physician shortages, debt burden, and lack of diversity, we remain committed to our accelerated pathways to the MD degree and full-tuition scholarships regardless of need or merit at the recently renamed NYU Grossman School of Medicine and the new primary-care focused NYU Long Island School of Medicine.

For more information about our physicians, services, and locations, visit nyulangone.org

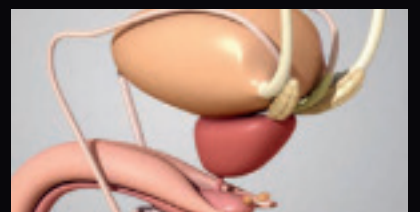
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Urology

2020 HIGHLIGHTS



Immunotherapy After
Transplant Does Not Raise
Men's Risk for Prostate
Cancer.
See page 3.



Improving Detection of
Prostate Cancer While
Avoiding Unnecessary
Biopsies.
See page 7.