STEPS TO SUCCESS:
IMPROVING ADVANCED PROSTATE CANCER PATIENT MANAGEMENT AND CARE COORDINATION

Developed in collaboration with the AUA and Pfizer Oncology
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Prostate cancer is the most commonly diagnosed solid organ malignancy for men in the United States and remains the second leading cause of cancer deaths for this population. Approximately 190,000 new diagnoses of prostate cancer and over 33,000 deaths were estimated in the United States for 2020. While overall prostate cancer incidence rates have declined, increases have been observed in the incidence of late-stage disease. Clinical advancement through the advent of combination therapies has resulted in a renaissance in the entire landscape for clinicians caring for men with advanced prostate cancer (APC). While offering significant survival benefits, such therapeutic development also renders clinical decision-making and the treatment environment itself increasingly complicated.

It is with such considerations in place that the American Urological Association (AUA) collaborated with Pfizer Oncology in a process improvement project to study APC patient management. Recognizing that the role of the urologic care team in the management of prostate cancer patients across the continuum of disease is a consistently evolving and extremely important component of urologic oncology, the AUA and Pfizer Oncology jointly developed and fielded a survey of healthcare providers to assess current practice patterns in various settings around care of APC patients. It is from this survey that a number of strategies were recognized to aid in earlier detection of patients in need of APC treatment, and tools were highlighted to ensure that patients are receiving the highest level of care and staying informed about their treatment options and goals. The best practices identified in the survey are further explored through in-depth case studies.

References
SURVEY RESULTS: TRENDS IN ADVANCED PROSTATE CANCER CARE AND MANAGEMENT

AUA conducted a membership survey via the AUA Practice Manager’s Network from August 28, 2019, through September 17, 2019. Survey queries touched on areas including demographics, patient monitoring, practice management, and quality and data/analytics.

PRACTICE DYNAMICS

Of the 600 respondents, a majority (63%) were urologists, while 27% identified as Advanced Practice Practitioners (APP), including Nurse Practitioners (NP) and Physician Assistants (PA). A majority (58%) of the respondents came from a urology group, and 8% came from a multispecialty group. Approximately 10% of respondents work at a solo practice, and 6% work at a hospital. Of the 600 respondents, 49% of the practices have or are associated with an APC clinic.

One of the aims of the survey was to examine the dynamics of the urology practices and to see how the different team members are involved in the care of APC patients. When asked if the respondents currently manage patients with APC, approximately 34% of the urologists, APPs, and practice administrators stated that they personally manage such patients, and 33% stated that they co-manage these patients with another specialty. Thirty percent stated that they do not manage APC patients; however, someone else in the practice is responsible for such care. When asked how frequently NPs or PAs are leveraged to identify and monitor patients at risk for progression of APC, 40% of the respondents identified that NPs/PAs are leveraged routinely, 22% identified they are sometimes used, and 38% identified that NPs and PAs never serve that role.

PATIENT MONITORING

While it is best practice to establish a multidisciplinary team, there were some discrepancies in understanding of the roles and responsibilities of each team member when it came to managing APC patients. More urologists (82%) believed APPs were involved in monitoring the medical regimen than APPs self-reported (64%). Fifty-one percent of APPs reported that they were responsible for the treatment of APC patients, while only 37% of urologists believed their practice utilized APPs in this capacity. The percentage of involvement of APPs as reported by urologists and self-reported by APPs was fairly equal for monitoring lab results (72% versus 75%), managing adherence to follow-up appointments (48% versus 47%), bone health counseling (46% versus 46%), and diagnosis of APC patients (33% versus 37%).

In order to evaluate how practices are administering oral oncology products to the urologic oncology patients, this survey asked the practices if they use an in-house pharmacy, specialty pharmacy, or if they refer the patient to medical oncology. While 32% indicated that the urologic oncology patients are referred to medical oncology to have their chemotherapy filled, 27% of the practices use a specialty pharmacy, and 41% indicated that their practice or institution uses an in-house pharmacy. However, of those who indicated that their practice uses an in-house pharmacy, 65% indicated that the role of the pharmacist is to dispense oral urology oncology products only. In some of the practices surveyed, the pharmacists had other roles when it came to dispensing the products, including screening (37%), initial education (30%), monitoring toxicities (20%), monitoring adherence (20%), reviewing laboratory results (17%), and monitoring progression (9%).

PROCESS/PRACTICE MANAGEMENT

Evidence-based clinical practice guidelines are developed to provide clinicians with guidance on how to manage the care of patients and were identified as a key tool for APC clinics. Of the practices surveyed, 67% indicated that they have processes or protocols in place to identify and treat castration-resistant prostate cancer (CRPC) patients and use clinical support and standardized treatment protocols to manage their workflow. A majority (87%) of the practices use AUA’s guidelines to influence how they identify CRPC patients, while 70% use the National Comprehensive Cancer Network (NCCN) guidelines, 34% consult with an oncologist, and 10% use Radiographic Assessments for Detection of Advanced Recurrence (RADAR) guidelines to influence how they identify CRPC patients. However, only 18% of respondents indicated that their electronic health record (EHR) includes these guidelines, and only 51% of the practices have metrics in place to measure if their practice or institution is adhering to the guidelines they have identified.

The practices identified a number of different clinical triggers that they use to identify CRPC patients. Some of the clinical triggers include prostate-specific antigen
(PSA) doubling time (76%), any PSA rise while on luteinizing hormone-releasing hormone (LHRH) (72%), castrate level of testosterone (<50 ng/dL) (65%), new or growing metastases on imaging (62%), a certain number of PSA rises within a certain number of months (38%), PSA level above a certain threshold (33%), an alert in the EHR system (6%), and an alert from the clinician responsible for pain management (3%).

Patients and their caregivers are important parts of the healthcare team. Allowing patients and their caregivers to participate in their care leads to improved patient outcomes and quality of care. The practices noted a number of different ways in which they empower patients to participate in their care including shared decision-making (88%); access to educational materials, both printed (69%) and online (43%); patient support groups (39%); patient navigation (31%); outreach calls to the patient (18%); referral to patient advocacy groups (18%); and peer-to-peer support with others with the same diagnosis (16%).

**QUALITY AND DATA/ANALYTICS**

Quality improvement initiatives are critical to ensure that patients are receiving high-quality healthcare. Of the healthcare members surveyed, 71% indicated that they implement quality improvement activities to support prostate cancer patients. Approximately 55% of the practices use patient education materials, 47% use care coordination (ie, implement processes to develop individual care plans for at-risk patients), and only 19% use population health (ie, longitudinal care management for patients at risk for adverse outcomes).

With the transition to EHRs, practices are provided with valuable data that can be used to identify and manage the care of patients. The respondents were asked how their practice uses their EHR and third-party analytics software to assist in care management. When asked how the practices use EHR data, only 29% indicated that their practice uses the data to identify CRPC patients, and 12% indicated that they use a third-party analytics software. Further, it is important for practices or institutions to collect data on how they are performing and how their patients are being managed. EHRs provide the opportunity for practices to create metrics or benchmarks to evaluate their practice with current data; however, only 7% of the respondents have processes for improving CRPC patient identification and management in their EHR, and 6% have processes outside of their EHR.

**KEY TAKEAWAYS**

The survey results provide valuable insight into current APC practice dynamics. While a number of best practices were recognized, areas of need were also identified that may serve as important focal points for future quality improvement efforts. Overall, many practices may find that they already possess important tools that can aid in the improvement of patient care. It is through continued practice evaluation and the appropriate application of currently available resources that practices may make significant progress toward care improvement.

**Reference**

Survey Results: Infographic

Urology Practice Dynamics

Multi-disciplinary Team Members Include:
- 82% Nurse Practitioner (NP)/Physician Assistant (PA)
- 41% Nurse Navigator
- 38% Insurance Specialist
- 27% have a Pharmacist
- 26% have a Physical Therapist
- 26% have a Data Analyst

N=600 Urology Practice Respondents
380 Urologists
57 Practice Administrators
163 Nurse Practitioners/Physician Assistants

49% of practices have or are associated with an Advanced Prostate Cancer Clinic

Urologist, Practice Administrators & NP/PA’s Report Who is Managing Advanced Prostate Cancer (APC) Patients in their Practice:
- 34% Urologists & NP/PA’s manage
- 33% Urologists & NP/PA’s co-manage with other specialty
- 30% Someone else in practice manages

56% of practices have a patient population with health disparities (i.e., disproportionate percentage of a specific population or socio-economic disparities)

Monitoring Patients

Role NP/PA’s Play to Identify and Closely Monitor Patients for Progression of Advanced Prostate Cancer (APC)

Practice Leverages
NP/PA’s:
- Routinely 40%
- Sometimes 22%
- Never 38%

NP/PA Percentage of Involvement in Managing Advanced Prostate Cancer Patients:

<table>
<thead>
<tr>
<th>As Reported Among Urologist</th>
<th>Self Reported Among NP/PA’s</th>
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<tbody>
<tr>
<td>Monitoring medical regimen</td>
<td>64%</td>
</tr>
<tr>
<td>Monitoring lab results</td>
<td>75%</td>
</tr>
<tr>
<td>Assessing other urologic issues</td>
<td>80%</td>
</tr>
<tr>
<td>Managing adherence to follow-up appointments</td>
<td>47%</td>
</tr>
<tr>
<td>Bone health counseling</td>
<td>46%</td>
</tr>
<tr>
<td>Treatment of advanced prostate cancer patients</td>
<td>51%</td>
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<tr>
<td>Diagnosis of advanced prostate cancer patients</td>
<td>37%</td>
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What Practice/Institution Uses to Dispense Oral Urology Oncology Products

- In-house Pharmacy 41%
- Medical Oncology 32%
- Specialty Pharmacy 27%

Role In-house Clinical Pharmacists Play

- Dispense only 65%
- Screening 37%
- Initial Education 30%
- Monitoring Toxicities 20%
- Adherence 20%
- Reviewing Labs 17%
- Monitoring Progression 9%
67% of practices meet the needs of advanced prostate cancer patients by:
- Having processes or protocols in place to identify and treat castration-resistant prostate cancer (CRPC) patients.
- Using clinical support and standardized treatment protocols to manage workflow.

How Often Urology Practices Use:

Specific Clinical Triggers to Identify a CRPC Patient:
- PSA doubling time - 76%
- Any PSA rise while on LHRH - 72%
- Castrate level of testosterone (<50ng/dl) - 65%
- New or growing metastases on imaging - 62%
- Certain number of PSA rises within a certain number of months - 38%
- PSA level above a certain threshold - 33%
- Alert in EHR system - 6%
- Pain Manager - 3%

Specific Approaches to Empower Patients:
- Shared decision-making - 88%
- Printed education materials - 69%
- Access to online education materials - 43%
- Patient support groups - 39%
- Patient navigation - 31%
- Outreach calls to patient - 18%
- Referral to patient advocacy groups - 18%
- Peer-to-peer support - 16%

71% use quality improvement activities that their practice/ institution implements to support prostate cancer patients.
- Over half use patient education materials - 55%
- Just under half use care coordination - 47%
- Less than one-in-five use population health (i.e., longitudinal management of high-risk patients) - 19%

EHR
- Leverage EHR data to identify CRPC patients - 29%
- Use EHR data for CRPC treatment protocols - 19%
- Do not have evidenced-based guidelines included in EHR - 66%
- Have evidence-based guidelines included in EHR - 18%

Third-Party Analytics Software
- Leverage third-party analytics to identify CRPC patients - 12%
- Use third-party analytics for CRPC treatment protocols - 9%

Metrics
Over half (51%) do not have metrics in place to measure their practice/institutions adherence to the guidelines.
- A quarter of urology practices (26%) have metrics in place
- Over one-fifth (23%) don’t know

Use of scorecards, metrics or benchmarks:
- 7% Have processes for improving CRPC patient ID and management in EHR
- 6% Have process for improving CRPC patient management outside of EHR
- 40% Do not use any

*This survey was conducted by Pfizer and American Urological Association, and conducted online through Survey Monkey from 8/28/19 through 9/17/19. Study sample: 380 urologists, 57 practice administrators, and 163 NP/PA’s.
IDENTIFICATION OF BEST PRACTICES

Following analysis of survey results, a number of best practices were identified and further explored through one-on-one interviews with survey participants. It is through this further qualitative research that AUA identified three practice sites of varying size and patient demographics to serve as subjects of in-depth case studies presenting common elements that allowed each site to build their programs to successfully care for APC patients.

Arkansas Urology, Little Rock, AR: Arkansas Urology is the largest urology practice in Arkansas offering the latest innovations in medical technology and surgical techniques to manage a variety of urologic conditions. Clinicians at Arkansas Urology see patients at multiple locations in Little Rock, AR and the surrounding areas.  

OU Health at the Stephenson Cancer Center, Oklahoma City, OK: The Stephenson Cancer Center in Oklahoma City, OK, is Oklahoma’s only National Cancer Institute-Designated Cancer Center. By bringing together specialists from several fields to form diverse treatment teams, the experts at Stephenson Cancer Center treat 20 different types of cancer and make the most cutting-edge surgical and medical treatments available to their patients.  

Tennessee Urology, Knoxville, TN: Tennessee Urology is a premier urology practice in eastern Tennessee with urologists seeing patients at 11 locations in Knoxville and the surrounding counties. Tennessee Urology is a member of United Urology Group, a management services organization with additional member urology practices located throughout Maryland, Delaware, Arizona, and Colorado.

STEPS TO SUCCESS

While all the sites participating in this case study series have unique aspects to their programs, they also share common elements that allowed them to make significant and meaningful progress with APC patient care. Based on the experiences of the highlighted programs, several best practices emerged.

1. Start with leadership and a commitment to delivering high-quality, evidence-based care.
2. Establish a multidisciplinary care team and define roles and responsibilities of team members.
3. Identify and collect information on key measures of care and solicit patient feedback.
4. Incorporate supportive care as necessary to provide a holistic care model.
5. Provide education to patients and family members.
6. Use technology to support clinical work and patient care.

There is no one-size-fits-all model for every program, but the examples provided may serve as a valuable roadmap for others who are thinking about implementing an APC program or looking for guidance on how to improve the care of their patients.

References
BEST PRACTICES IN ACTION: CASE STUDY #1

ARKANSAS UROLOGY
Little Rock, AR

Arkansas Urology is the largest urology practice in Arkansas with over 35 care providers, including urologists, a radiation oncologist, advanced practice providers, and nurses, who offer the latest innovations in medical and surgical technology. The practice has a strong patient-focused philosophy and is dedicated to providing patients a full range of care from initial diagnosis through treatment and recovery. Arkansas Urology treats a variety of urologic conditions in approximately 110,000 patients (both men and women) each year in 11 regional locations, including multiple Centers of Excellence:

- Urological Cancer Center
- Prostate Health Center
- Comprehensive Men's Health & Screening
- Kidney Stone Treatment Center
- Women's & Pelvic Health Center
- Bladder Health Center
- Sexual Health Center

Arkansas Urology is also home to the Arkansas Prostate Cancer Center, a partnership between Arkansas Urology and AKSM/Oncology. The Center offers radiation therapy exclusively for patients of Arkansas Urology with a care team of urologists as well as a highly experienced clinical staff of radiation specialists, including a radiation oncologist, medical physicist, medical dosimetrist, and radiation therapist.

Arkansas Urology recognizes the value of research and has made efforts to increase the number of clinical trials available to patients. With a number of clinical trials currently available for a variety of conditions, including prostate cancer, a complete list of available trials is available through the AU Research Center (AURC).

As part of their pledge to make the highest quality of healthcare available to residents of Arkansas, the Arkansas Urology Foundation raises funds to promote the services provided by Arkansas Urology across the state and focuses on providing free health screenings to men of Arkansas. As part of its mission, the Arkansas Urology Foundation connects Arkansans of all ages to comprehensive healthcare and wellness through education, collaboration, and advocacy to inspire and empower all men and women to live longer, healthier, and happier lives. The Arkansas Urology Foundation works to strengthen the Arkansas Urology commitment to increase access to urologic care to underserved communities throughout the state.

THE ARKANSAS UROLOGY FOCUS ON CONTINUED IMPROVEMENT IN ADVANCED PROSTATE CANCER CARE

Arkansas Urology has been treating prostate cancer patients since the practice was founded in 1996. It is in the past five years that the practice began to define a pathway around the treatment of patients with APC. As with many practices looking to move into the APC treatment space, Arkansas Urology didn’t know what they didn’t know—they did not have baseline data, but they decided that their starting point and focus would be to make sure that the right patients got the right treatments at the right times.

The first practice goal was to create a clear and consistent treatment pathway for APC patients around which drugs were going to be recommended and how they were going to be prescribed. As such, an early baseline practice measure was looking at time between patient diagnosis and initiation of treatment. It’s with that first goal in mind that Arkansas Urology began on their journey of establishing an APC clinic with the hiring of a nurse navigator to focus solely on the coordination of care for APC patients. Today, the practice operates by a 1:1:1 model in which each physician has one nurse (typically an RN or LPN), one medical assistant, and one scribe. The navigator works closely with each physician’s nurse to coordinate patient care. Following implementation of the navigator model, the practice soon realized improvements in consistency of patient treatment and subsequently expanded the navigation program.

Moving forward from the early inception of the APC program, Arkansas Urology has since created a culture focused on continued practice improvement grounded in robust data review of physician adherence to practice pathways and patient outcomes.

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improvement discussion around APC patient care within the practice.

About three years ago, Arkansas Urology began hosting monthly tumor boards with participants including the prostate cancer champions, radiation oncologists, nurse navigator, NPs, and representatives from finance and IT. It’s at these tumor boards that benchmarks for current practice goals are set and practice performance is discussed.

While Arkansas Urology continues to monitor a number of practice areas, examples of current practice measures include the following:

1. Adherence to RADAR Guidelines
2. Measurement of PSA at each follow-up visit
3. Measurement of testosterone at each follow-up visit
4. Average time from patient diagnosis to initiation of treatment

Once a benchmark is set, physician adherence is measured and reported to the entire practice, so all physicians know how their performance compares to that of their colleagues. Once the practice began dissemination of adherence data, they saw a dramatic increase in adherence. Arkansas Urology soon recognized that a large part of undertaking improvement efforts is in helping each individual to understand his or her own performance and how that performance tracks against peers.

As one of their newer initiatives to better understand total patient journey, practice data are also being used to identify newly diagnosed patients and monitor practices around active surveillance and progression of disease and subsequent cancer treatment. Future plans are also in place to monitor patient-reported outcomes. While many such measures are subjective, it is important to the practice that patients are not only seeing benefits in terms of cancer control, but quality of life as well.

PRACTICE RESOURCES

Many early process improvements were the result of physician collaboration and discussion of important patient outcomes. In identifying measurable outcomes, Arkansas Urology first looked to evidence-based medicine to help define what quality care meant to the practice and then began reviewing and reporting adherence to those standards.

- PPS Analytics: PPS Analytics provides real-time data insights into individual patient journeys, practice-wide disease management, protocol adherence, and best practice benchmarks. Reports are pulled directly from the practice’s EHR system (Athena) and are used to review overall and individual performance on practice-wide pathway adherence and progression toward achievement of process improvement goals.
- Red/Yellow/Green Dashboard: In looking at physician performance, the practice uses information pulled from PPS Analytics and creates monthly reports for internal use and disseminates reports to physicians quarterly. The red/yellow/green reporting style allows physicians to easily visualize their performance against set practice benchmarks to determine if they are performing at the expected level.
- Arkansas Urology (AU) Gold Standards: The practice utilizes a list of 20 standards to which each employee is held accountable. By having these standards spelled out, Arkansas Urology has a clearly defined list of behaviors that are and are not acceptable within the practice. This list represents aspects of the practice’s mission statement and defines not only how employees interact with each other but also how they interact with patients as well. These standards are used to drive practice decision-making.

CHALLENGES IN IMPLEMENTING QUALITY IMPROVEMENTS

When Arkansas Urology first began on their journey of continual practice assessment, the data reports that were being used to drive advancement were being pulled manually. Not only is such a process time and labor intensive, but it is also prone to error. Once the practice moved to an automated analytics program, Arkansas Urology was able to create a more streamlined process for data mining and promote a more robust data review program. While there is still labor involved in report generation, the current process is much more efficient and less fallible. The practice also has dedicated staff to pull such information, further streamlining the process.

While Arkansas Urology worked to determine appropriate APC treatment pathways and put tools in place to measure physician adherence to those pathways, part of the responsibility is also on the patient to follow through with the treatment plan. While the practice itself has less control over patient adherence, Arkansas Urology found that patient education is a valuable resource in engaging patients in their care plans and increasing the likelihood that they will follow through with treatment. A large part of this education comes from the navigation team who works
with patients to ensure that they understand their options and have the resources necessary to continue treatment.

In terms of implementing change, it is not uncommon to encounter practitioners who are change averse. Particularly when a practice is trying to alter long-established processes, there may be pushback. Much of this can be avoided with clear communication of the need for change and delineation of the process and timeline for implementing change. Arkansas Urology emphasizes the need for transparency in all practice decisions and has a strong open communication plan in place to ensure that all staff members are engaged in the quality improvement process. Much of this begins with leadership, not only at the administrative level, but with the physician champions as well.

**Steps to Success: Setting Practice Goals and Implementing Quality Improvements**

The ultimate goal of quality improvement is to create an optimal environment for patients to receive the best care available. In order to create that environment, a practice needs to promote a culture in which employees understand the mission and vision of the practice, are involved in development and achievement of goals, and actively engage in open communication as process improvements are implemented.

**Create a Practice Culture**

The first step in establishing a practice culture is to outline acceptable behaviors within the practice. This may come in the form of an employee handbook or practice onboarding material—in the case of Arkansas Urology, this is defined within their list of AU Gold Standards, which is presented to each employee when he or she is hired. Arkansas Urology uses their list of 20 standards to ensure that all practice decisions are made in keeping with the culture they have established for the practice. While a practice can implement new care pathways and review various process metrics, it’s important for a practice to establish a culture that is collegial and recognizes the importance of instituting improvements for the betterment of patient care.

A practice’s culture is largely influenced by leadership who should serve as an example of how to uphold the standards of the practice. Identified leaders need to have a passion for their work and a keen understanding of practice dynamics. Strong leaders create optimism and inspire employees to strive for improvement in support of practice goals.

**Establish SMART Goals**

Goal setting is a key way to build a better practice and implement process improvements for the benefit of patient care. SMART goals delineate targets for improvement that a practice can strive to achieve over a given period of time. The SMART acronym defines the important attributes (specific, measurable, attainable, realistic, time bound) that should be present in each goal. By using the SMART framework, a practice ensures that it is creating goals that will be beneficial to the practice and patients while also creating a framework for defining success and a roadmap for achieving improvement.

**Figure 1: Creating SMART Goals**

<table>
<thead>
<tr>
<th>Specific</th>
<th>Goals should be well defined, clear, and concise</th>
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</thead>
<tbody>
<tr>
<td>Measurable</td>
<td>A metric should be set for how progress will be defined and measured</td>
</tr>
<tr>
<td>Attainable</td>
<td>While goals should push toward improvement, they should be realistic</td>
</tr>
<tr>
<td>Realistic</td>
<td>Goals should align with the mission and vision of the practice</td>
</tr>
<tr>
<td>Time Bound</td>
<td>A timeline needs to be set for achieving identified goals</td>
</tr>
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</table>

- **Specific:** A goal that is specific is much more likely to be accomplished than one that is poorly defined. The practice should be very clear in identifying the target it is trying to hit. Every staff member directly working toward a goal should have a solid understanding of exactly what he or she is trying to achieve so that practice changes can be implemented and resources can be allocated to work toward that goal.

- **Measurable:** There should be a way to quantify and track goal progress. By creating a measurable goal, a practice is defining how it will show that it is making progress toward achieving that goal.
Having measurable goals also allows for a practice to periodically reevaluate a goal to determine if it is reasonable and, ultimately, how to define success.

• Attainable: In implementing attainable goals, a practice needs to ensure that the goal can be feasibly achieved. While there are many instances where 100% compliance may be the ultimate target, certain process improvements may need to be put in place to achieve this depending on the starting point. This is an example of when incremental goals may be appropriate—benchmarks may be adjusted following initial reporting of adherence.

• Realistic: All goals should be relevant to the practice. When setting goals, a practice needs to be aware of its mission and determine if the goal is in line with or driving toward that practice mission. A good deal of effort may be required to achieve goals, so it’s important that actually achieving a goal will offer the patients or practice itself some sort of quantifiable benefit.

• Time Bound: Setting a timeline for achieving a goal will ensure that the practice stays on schedule. The point of setting goals is practice improvement, but benefits fall off as the time period for achieving a goal extends past a certain point. If a goal is set without a timeframe, it’s easy to lose sight of the goal and reprioritize to other areas of focus.

ENGAGE IN OPEN COMMUNICATION

One of the greatest challenges in quality improvement is often achieving group consensus and gaining full acceptance of practice changes. Arkansas Urology has a strong focus on transparency within their practice, and much of this comes down to practice communication. When setting practice goals and implementing policy changes, leadership should be clear about expectations and work to disseminate information to ensure that everyone in the practice is moving in the right direction. Information sharing is one means to engage the entire practice in quality improvement. At Arkansas Urology, both clinical and financial data are shared with the entire practice, so all individuals can hold themselves accountable for their performance and use the data to understand how practice changes have affected both the patients (clinical and quality of life outcomes) and the practice (financial outcomes).

While the entire staff is working toward the same ultimate goal—providing high-quality patient care—each individual likely has a unique perspective on what improvements could benefit the practice and how to implement change in a productive manner. As such, it is important that all staff members have a means to voice opinions and engage in the process. In order to enact change, information should not flow only in one direction (either top down, or bottom up) but also in a continual feedback loop between all parts of the practice, including executive leadership, physicians, nurses, and additional support staff.

A strong focus on the practice mission and continuous communication of practice efforts to further that mission are instrumental in quality improvement.

FINAL THOUGHTS

“Good doctors given good data make good decisions.”

“Celebrate, but never rest on your successes. That is what makes good organizations great.”

“If you do what is right for the patient, everything else will take care of itself.”

E. Scot Davis
CEO, Arkansas Urology

References

OU HEALTH AT THE STEPHENSON CANCER CENTER
Oklahoma City, OK

OU Health is the primary source of healthcare for many residents of Oklahoma. OU Health serves a disproportionate number of underserved populations, including large rural and American Indian communities, with 60% of patients having highly complex health needs. Central to OU Health’s mission is its ongoing community-based cancer prevention work, focused on providing residents of Oklahoma with the highest quality healthcare and most advanced treatment options.

With a strong focus on quality patient care, OU works to achieve the highest standards of patient care and innovation through implementation and continued enhancement of a robust self-evaluation system. Throughout 2020, OU undertook its first triennial Community Health Needs Assessment. This assessment identified several priority areas, including treatment of cancer patients, which will be used to inform OU Health’s 2020-2022 implementation plan—a strategic guide for future community work.

Importantly, OU Health is home to the Stephenson Cancer Center, established in 2001, whose mission is to improve patient outcomes and reduce the burden of cancer in Oklahoma and the nation. Stephenson employs over 100 cancer experts who specialize in the diagnosis and treatment of all types of cancer. In 2011, Stephenson provided care for 1 in 20 cancer patients in Oklahoma, and by 2018 that number tripled to 1 in 6. In 2018, Stephenson became the state’s only National Cancer Institute (NCI)-Designated Cancer Center. The 71 NCI-Designated Cancer Centers represent the top 2% of cancer centers in the United States and are considered to be the nation’s leaders in cancer treatment and research.

The Stephenson Cancer Center takes a multidisciplinary team-based approach to cancer treatment and places a strong emphasis on patient supportive care to help patients and caregivers address the mental, emotional, and physical challenges associated with a cancer diagnosis. By bringing together specialists from several fields, patients can engage with diverse treatment teams to discuss all available treatment options. Through this collaborative approach, cancer experts share their diverse knowledge, skills, and experiences to develop the most comprehensive treatment plan for patients. As such, disease site-based multidisciplinary teams meet regularly to evaluate patient profiles, review and discuss treatment plans, examine newly developed therapies, and identify potentially relevant clinical trials for each patient.

With a record of success of the multidisciplinary team approach to treatment in other cancer programs within Stephenson, the prostate cancer program as it looks today began to take shape around 2015. Physicians first identified APC patients using baseline data from lab work and imaging on diagnosis and staging and established a team who would meet virtually, both in clinic and at tumor boards, to discuss specific patient cases. The Prostate and Urologic Cancers Clinic treatment staff now includes 11 healthcare providers, including urologic oncologists, a medical oncologist, PAs, and NPs. The importance of advanced practice providers to the care team cannot be overstated as they add tremendous value to the patient-centered care model approach.

PRACTICE RESOURCES

Healthcare providers at Stephenson Cancer Center use a variety of tools and resources to promote efficient and effective management of patient care.

- Evidence-Based Clinical Practice Guidelines: Physicians frequently refer to guidelines for up-to-date information in evidence-based medicine. The management of APC is rapidly evolving. Therapeutic advances in the treatment landscape for APC render treatment decisions and sequencing increasingly complex. Evidence-based guidelines provide clinicians with a tool to help guide treatment decisions backed by data. Physicians noted primary use of the AUA evidence-based guidelines as well as
products available through the NCCN.

- **Clinical Trial Support:** As an NCI-Designated Cancer Center, clinical trials are an important focus. A centralized Clinical Trials Office provides management and support services for all trials being conducted at Stephenson. Each patient is discussed during tumor boards with time dedicated to reviewing eligibility for available clinical trials. Clinicians utilize information sheets when discussing clinical trial options with patients; such tools are used not only to ensure that all eligible patients are offered available clinical trials, but also to track overall institution-based trial accrual and growth.

- **Treatment-Specific Checklists:** Clinicians use a number of checklists when discussing treatment options. In a space where many options may be beneficial, it is important that patient factors and preferences are taken into account before determining a treatment plan. Clinicians are able to utilize such tools to discuss options with patients and collect information necessary to make informed treatment decisions.

### CHALLENGES IN PRACTICE GROWTH

As is often the case, as patient volume increased, so did staffing needs. A tremendous amount of work is required to both coordinate patient appointments and follow patients after each visit—much of this work is not directly reimbursed. Without a dedicated team to handle scheduling and issues, such as coverage and prior authorizations, a treatment team may become overwhelmed with the administrative side of patient care. Stephenson was able to alleviate some of this burden through the hiring of additional support staff. Navigators and advanced practice providers coordinate patient care while also serving as points of contact for patient questions and concerns.

Further, specialty pharmacy approval is a common challenge seen in the healthcare setting, particularly in oncology. Like many, Stephenson Cancer Center experienced such difficulties, which they found were greatly improved with the implementation of an on-site pharmacy. The Stephenson Cancer Center pharmacy consists of the infusion pharmacy, retail pharmacy, and clinical pharmacy team staffed by pharmacists who are considered to be an extension of a patient’s multidisciplinary care team and work closely with the physicians to ensure safe and effective drug delivery.

### STEPS TO SUCCESS: ESTABLISHING A MULTIDISCIPLINARY CLINIC

Reviews of multidisciplinary clinics in practice reveal a number of patient benefits, including high satisfaction with care, and improved classification of disease. There is no one-size-fits-all model that will work for everyone, so each clinic will need to review available resources, determine additional needs, and see how best to promote multidisciplinary care.

**Identify Multidisciplinary Team Members**

Members of the multidisciplinary team should include experts in urology, medical oncology, radiation oncology, and supportive care. Supportive services are important and cannot be underestimated—this may look different at each center depending on patient needs and practice resources.

At Stephenson Cancer Center, supportive care includes the following:

- Cancer Rehabilitation Clinic
- Cancer Genetics Clinic
- Oncology Nutrition Clinic
- Oncology Social Work
- American Indian Navigational Services
- Distress Management
- Pain and Symptom Management

Other team members include PAs and NPs who can aid in patient care. Navigators are also valuable team members who coordinate patient care and foster efficient patient scheduling to prevent unnecessary treatment delays while ensuring that physician case load is consistent and well managed. Navigators may be any individuals with a clinical background in nursing who are knowledgeable about patient needs and understand how to maximize each patient visit.

### ESTABLISH A PRIMARY CAREGIVER

As patients progress through their disease, they will interact with many specialists. While a multidisciplinary approach to treatment is key, it is important that the urologist is a consistent presence throughout that treatment journey. Transitioning patients away from the physicians they have formed relationships with and have seen from diagnosis through multiple treatments can inadvertently create confusion and has potential to cause psychological distress. Urologists understand the progression of disease as well as available management options and can coordinate the specialty care patients may require from other specialists as well as ancillary help.
SELECT A MODEL FOR MULTIDISCIPLINARY CARE

All-In-One Multidisciplinary Clinic

From a patient perspective, an all-in-one approach may be the most efficient where all providers are located in a single location and maintain similar clinic schedules. This reduces time and travel burden on the patient by allowing for discussion of a coordinated treatment plan with all involved specialists on the same day in the same place. All members of the care team can meet in a face-to-face manner to discuss specific patient cases either during shared clinic hours or through an in-person tumor board. Clinicians are able to discuss the status of each patient and determine the most appropriate treatment course while also discussing any potential clinical trials for which a given patient may be eligible. While this may be advantageous for the patient, it can sometimes be difficult for the physician team—this is where the coordination provided by a navigator is so important.

Figure 2A: All-In-One Multidisciplinary Clinic


Virtual Multidisciplinary Clinic

The all-in-one clinic may not work for every practice. Physician schedules and time and space limitations may preclude such an approach. From a management perspective, the all-in-one clinic may also suffer from reduced productivity in addition to increased financial burden. Alternatively, a clinic may utilize a virtual multidisciplinary clinic approach in which patient visits are more fragmented (either in time, location, or both) and the care team relies predominantly on virtual interactions (e.g., a shared EHR system, messaging) to discuss patient care. If clinic locations are in close proximity to each other, patients can still plan for all visits to take place on a single day with a bit of increased travel between locations. If conflicting schedules or separate clinic locations prevent same day visits, a different day/different clinic model may be utilized; while constraints on clinicians are minimized, there will be an increased patient burden to visit with each care provider separately. The aid of a navigator will be valuable in this scenario to help the patient coordinate appointments and ensure that each provider has all patient information necessary prior to each visit. With less opportunity for direct face-to-face interaction, there will be an increased onus on the care team to find opportunities for discussion of patient cases. This may be accomplished through the use of a shared EHR system, a messaging system, or scheduled tumor boards.

Figure 2B: Virtual Multidisciplinary Clinic


PROMOTE A SYSTEM FOR EFFECTIVE COORDINATION AND COMMUNICATION

Coordination and communication are critical to the success of a multidisciplinary care team. There need to be mechanisms in place to promote inclusion of all members of the care team.

- Shared Management Staff: Particularly in virtual multidisciplinary clinic scenarios, coordination and communication will greatly benefit from having a team of shared managers who are able to obtain appropriate referrals and schedule visits concurrently with all necessary care providers.
- Shared EHR System: A shared EHR system, if possible, can facilitate effective communication between caregivers and ensure that each member of the multidisciplinary team is engaged and informed about each aspect of a patient’s care plan.
**Tumor Boards:** Tumor boards also provide a forum for caregivers to discuss patient needs and achieve group consensus regarding potentially challenging treatment plans. This is also an ideal venue to discuss newly available treatment options and available clinical trials.

**FINAL THOUGHTS**

“Work together for the common goal of improving patient-centered care. There is no one-size-fits-all model, so flexibility is key!”

Michael S. Cookson, MD, MMHC
Professor and Chairman, Department of Urology

“Even the most experienced physicians will benefit from feedback from colleagues. The value of peer-to-peer communication cannot be underestimated.”

Kelly L. Stratton, MD
Assistant Professor, Department of Urology

**References**


TENNESSEE UROLOGY, A UNITED UROLOGY GROUP MEMBER

Knoxville, TN

Tennessee Urology is a member of United Urology Group (UUG), a management services organization created in August 2016 to provide the highest quality and most fully integrated urology care to patients through a national network of urology affiliates. UUG’s member practices include Arizona Urology Specialists, Chesapeake Urology, Colorado Urology, and Tennessee Urology. In total, UUG employs more than 1,400 individuals, including over 200 care providers located in 87 offices/ambulatory surgical centers. Their integrated approach to urologic care provides patients with access to specialists, a comprehensive support team of healthcare professionals, innovative diagnostic tools, advanced treatments and therapies, and clinical trials.

With multiple locations in the greater Knoxville area, Tennessee Urology joined UUG in 2018 with the vision to be the nation’s leading urologic group practice through commitment to accessible, high-quality, cost-effective care; patient satisfaction; and community involvement. The medical staff of Tennessee Urology now includes a team of 18 urologists in addition to PAs, NPs, navigators, and physical therapists who treat a number of general and specialized urologic conditions in both men and women.

In 2019, Tennessee Urology opened The Urologic Surgery Center of Knoxville, a state-of-the-art ambulatory surgery center that is now the only surgery center in East Tennessee dedicated to urologic surgery.

The Tennessee Urology Prostate Cancer Care Program is a comprehensive program that provides a continuum of care from experienced, multidisciplinary teams of specialists. Tennessee Urology provides patient-centered care that focuses on each individual patient from diagnosis through treatment and recovery with the goal of providing specialized patient education and supportive care to aid patients as they progress through their treatment journeys.

THE TENNESSEE UROLOGY NAVIGATOR APPROACH TO ADVANCED PROSTATE CANCER CARE

Tennessee Urology made the decision to move to a navigator model about six years ago prior to joining UUG. Many private practices at the time had not yet realized the value of having such a person as part of the care team. It was through a partnership with a local cancer center that Tennessee Urology was able to create their first navigator position.

At Tennessee Urology, the navigator is viewed as an important member of the highly trained patient care team and works closely with each patient’s urologist to guide and support patients as they make treatment decisions. The navigator is trained to anticipate, address, and overcome barriers to patient care and help patients as they progress through treatment. The navigator is considered to be an advocate for patients and their families to ensure the quality of care each patient receives. As such, the navigator not only aids the practice itself through streamlined coordination of care but also serves as a support tool on the patient side helping to improve the overall patient experience.

While there are individual teams working around each part of a patient’s care program, it is the navigator who coordinates the interaction between each part. The navigator serves as a primary resource to arrange care following procedures and provides information and guidance to patients as they schedule specialized appointments.

Data provides an important look at how a patient is performing from a cancer control standpoint, but Tennessee Urology recognizes the value in being able to interact with the patient to further gauge overall patient performance and well-being. This added level of patient engagement begins with the navigator.
Figure 3: Primary Roles of the Navigator

CARE COORDINATION
Coordinate scheduling of patient visits
Provide for patient transition if additional specialty care is required

PATIENT EDUCATION
Provide educational resources to facilitate informed decision-making
Answer patient and family questions about treatment plans

SUPPORT SERVICES
Promote access to services to support patient physical and emotional well-being
Engage with patients to better understand psychosocial needs

CARE COORDINATION
The navigator at Tennessee Urology plays an important role in the review of each patient prior to scheduled appointments to ensure that the care team is informed and prepared for each patient visit. It is important for patients to know that planning went into their care even before they enter the clinic. Team meetings take place each week that include a navigator, prostate cancer champion, NP, and pharmacy technician. All patient appointments for the coming week are discussed, and the care team can begin proactively planning potential patient education, lab work, scans, or pharmacy needs. If a patient may begin a new treatment, the navigator can initiate a discussion with the pharmacy technician to coordinate any special needs in obtaining the medication, including confirming coverage, and begin putting together an educational packet.

The team also discusses the previous week’s appointments and ensures that patients have future appointments scheduled. Timeframes for follow-up when new treatments are initiated are also set to discuss any patient concerns and ensure that patients are taking prescribed medication as directed.

Patients in need of additional care from medical or radiation oncology may be referred outside of the practice. Tennessee Urology maintains close relationships with such specialty providers to coordinate transition of care, which is led by the navigator.

PATIENT EDUCATION
The navigator ensures that patients are informed and educated about their care from the very beginning. The navigator at Tennessee Urology is able to customize learning materials to patient needs and make sure patients are receiving all of the education they need and want. APC patients receive a copy of Mark Moyad’s Promoting Wellness Beyond Hormone Therapy, a book that Tennessee Urology has found to be particularly helpful in providing health and wellness tips for patients with hormone-refractory disease. Additional materials specific to survivorship and treatment options are often provided in the form of handouts or pamphlets. Tennessee Urology is able to provide comprehensive educational packets largely thanks to financial support provided by industry sponsors.

In addition to providing initial education, the navigator may also serve as a source of information when patients and family members have questions about ongoing care. While the urologist can provide detailed information about a patient’s treatment plan, families often require guidance in understanding how the details affect care moving forward. The navigator is able to distill clinical information and ensure that patients and caregivers understand the patient’s condition and specific treatment plan.

SUPPORTIVE SERVICES
As a primary point of contact for a patient, the navigator is uniquely positioned to aid in the physical and emotional support needed by patients outside of direct cancer control.

In reviewing the results of patient surveys, the navigator at Tennessee Urology noted that some men weren’t necessarily experiencing severe treatment-related side effects, but they were still somewhat unsure of their care approach. As a result, a support group program was put in place to bring in speakers to discuss treatment plans and provide an open forum for men to engage with other men experiencing a similar treatment journey. Early in the program, a physical therapist was presented as a featured speaker. Following positive feedback, Tennessee Urology subsequently added physical therapy services to the practice.
Additional patient resources are also made available through other practices within UUG and the American Cancer Society. Patients looking to begin a smoking cessation program are also given resources through smokefree.gov and the American Lung Association.

**CHALLENGES IN IMPLEMENTING A NAVIGATOR MODEL**

At Tennessee Urology, the focus is on the patient; however, there is a large administrative burden involved in coordinating patient care that can take valuable time away from direct patient interaction. With a single navigator working with all prostate cancer patients, time is a valuable resource.

When Tennessee Urology first implemented the navigator model, the navigator was responsible for all aspects of patient scheduling, including billing, which was not standardized between the multiple locations within the practice. Following the decision to join UUG, Tennessee Urology benefitted greatly from the standardization of such processes. Now, if a navigator is attempting to schedule patients for visits between multiple locations, there is one centralized system for doing so. Further, UUG implemented a consolidated system that handles billing issues and ensures adequate coverage for all member practices.

One of the most valuable tools for the navigator at Tennessee Urology is data; however, such a large repository of information requires a great deal of time to monitor and review. While reviewing patient data has enabled the navigator to be more proactive in identifying patients in need of APC care and following those already in treatment, allotting the time to review data is an ongoing challenge. Recognizing this common issue, many practices are now hiring data analysts to mine such information. While Tennessee Urology does not currently have such a position on staff, the practice and UUG as a whole recognize the value of data analysis and may look into filling this gap in the future.

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**STEPS TO SUCCESS: UTILIZING A NAVIGATOR**

**Figure 4: Establishing the Patient/Navigator Relationship**

<table>
<thead>
<tr>
<th>IDENTIFY PATIENTS IN NEED OF APC CARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilize data to proactively identify patients in need of APC care</td>
</tr>
<tr>
<td>Discuss changes in patient status with current urologic care provider</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MAKE INITIAL CONTACT WITH PATIENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensure the patient has support (eg, transportation, insurance, care director)</td>
</tr>
<tr>
<td>Provide direct contact information and a list of upcoming appointments</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>PARTICIPATE IN THE FIRST PATIENT APPOINTMENT</th>
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</thead>
<tbody>
<tr>
<td>Make face-to-face introduction during the first patient visit to the APC clinic</td>
</tr>
<tr>
<td>Explain the role of the navigator as part of the care team</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FOLLOW UP AFTER THE FIRST APPOINTMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensure patient understanding of the care plan moving forward and help to execute that plan</td>
</tr>
<tr>
<td>Contact the patient following initiation of new treatment to monitor patient progress</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROVIDE ONGOING PATIENT SUPPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aid patients in coordination of all future appointments</td>
</tr>
<tr>
<td>Serve as a resource for questions about care</td>
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</table>

**Identifying Patients**

Data collection is a key tool in the proactive identification of patients in need of APC care. While there are a number of options available, Tennessee Urology utilizes PPS Analytics.
At Tennessee Urology, the navigator filters out patients who are on androgen deprivation therapy (ADT) and can look for potential signs of progression, such as PSA increases. The navigator can also review patients ahead of scheduled appointments to see if they are due for any scans or further testing as dictated by their care plans. In a practice where urologists are treating multiple urologic conditions, data can be used as a clinical driver to focus appointment discussion and ensure that patients are being appropriately monitored. If a patient is on ADT, he should always have an appointment scheduled for his next injection. As such, PPS Analytics can alert the navigator to patients who aren’t following up with treatment and reach out to ensure that care is received in a timely manner.

While the navigator at Tennessee Urology reviews such information, this may also be performed by a data analyst. If a practice is able to have such a position on staff, the navigator should still review reports to identify patients in need of further care and monitor treatment progress and adherence.

**Establishing a Patient/Navigator Relationship**

The navigator is going to be a central part of a patient’s treatment experience; as such, a strong relationship should be formed even before initiation of care. To this end, the navigator may reach out to a patient to provide information about an upcoming appointment and ensure that all of a patient’s needs surrounding care support are met:

- Transportation to and from appointments
- Financial support for medical coverage
- Availability of a caregiver following treatments (family or others)

Tennessee Urology initiates this discussion via phone with follow-up materials sent in the mail, including a personalized card thanking patients for trusting the practice with their cancer care.

The navigator should then follow up with the patient during his first clinic visit for a face-to-face introduction. This meeting provides an opportunity for the navigator to explain his or her role in the patient’s care plan and ensure that the patient understands his diagnosis and treatment options. Education is a valuable resource for patients who respond to care better if they understand that things can be done about their disease. Part of this is understanding how patients absorb information. The navigator should take into consideration multiple factors prior to tailoring patient education:

- Patient literacy
- Capacity for education
- Translational needs
- Hearing or vision impairment
- Educational preferences

**Providing Ongoing Support**

Based on response to treatment, a patient’s care plan may change. The navigator should follow up with patients regularly to answer any questions that they may have if there are any changes to the initial treatment plan. Patient needs may evolve, so the navigator may provide additional resources as needed. This may include referral to support groups or other community-based programs, referral for supportive care (eg, nutrition, smoking cessation, palliative care), or simply a discussion about potential disease- and treatment-related side effects.

Through ongoing data analysis, the navigator may also note if a patient is in need of an appointment or is falling behind on his care plan. In such instances, the navigator should contact the patient to ensure that he has adequate resources to continue his treatment. Every member of a patient’s care team is invested in that patient’s well-being, so the navigator should emphasize that it’s equally important for the patient to follow through with his care.

**FINAL THOUGHTS**

“People said, ‘Oh, a support group for men will never work—men don’t like to talk.’ But they do! Men like to talk as long as you give them a safe environment in which to do it.”

“Data can only give us so much—patients require physical and emotional support, and the best way to provide that is to work together to actually discuss each patient. Teamwork makes the dream work!”

Sylvia Waters, RN
Patient Navigator

**References**


One of the factors identified through this project was the importance of taking a holistic approach to patient care. As such, many of the key takeaways described herein are beneficial not only for the urologist, but the supportive care team and practice administrators as well. These recommendations touch on both improvement of care through direct patient interaction as well as internal practice evaluation to ensure that a practice is performing efficiently and effectively. This resource may be used to guide evaluation of practice goals, develop educational tools for both patients and providers, and incorporate effective practices in patient management to create a practice-wide program aimed at improving complete care for APC patients. Practices are reminded that many of the tools already available, particularly the practice EHR, can be valuable assets in monitoring progress toward realization of practice goals. Implementation of the best practices identified in the case study series may look different for each APC clinic given constraints due to practice size, patient population, and available resources; however, the examples provided may serve as beneficial starting points that can be tailored to the individual needs of each program.

KEY TAKEAWAYS

1. **Start with leadership and a commitment to delivering high-quality, evidence-based care.**

The importance of clinical practice guidelines is often noted. A number of guideline-producing organizations offer content in the APC space. It is up to each practice to decide which guidelines to follow and how to best integrate them into practice. Many such guidelines offer treatment algorithms that can be integrated into existing EHR systems or adapted into a number of different formats for use in patient education and medical decision-making.

It will largely fall to leadership to ensure adherence to established clinic pathways, both at the physician and executive level. To this end, practice champions may be identified to help implement appropriate practices and monitor clinic performance—many practices have champions both at the physician and nurse level with some practices also having administrative champions. The practice champions play an important role in the establishment and ongoing performance of the APC clinic:

- **Maintain a strong commitment to and understanding of the practice mission and promote a culture dedicated to upholding the highest standards of patient care**
- **Support the use of evidence-based medicine and encourage continuous learning as it relates to the ever-changing treatment landscape**
- **Understand the roles of each member of the healthcare team and serve as a source of ongoing support in the application of practice improvement and mission-driven healthcare**

Figure 5: AUA/ASTRO/SUO Advanced Prostate Cancer Evaluation Summary

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td><strong>DISEASE STATES</strong></td>
<td></td>
</tr>
<tr>
<td>Biochemical recurrence without metastatic disease</td>
<td>a rise in PSA in prostate cancer patients after treatment with surgery or radiation (PSA of 0.2ng/mL and a confirmatory value of 0.2ng/mL or greater following radical prostatectomy and nadir + 2.0ng/mL following radiation); this may occur in patients who do not have symptoms</td>
</tr>
<tr>
<td>Hormone-sensitive prostate cancer (castration-sensitive prostate cancer)</td>
<td>prostate cancer that has either not yet been treated with ADT or is still responsive to ADT</td>
</tr>
<tr>
<td>Castration-resistant prostate cancer</td>
<td>disease progression despite ADT and a castrate level of testosterone (&lt;50 ng/dL); progression may present as either a continuous rise in serum PSA levels, the progression of pre-existing or new radiographic disease, and/or clinical progression with symptoms</td>
</tr>
<tr>
<td>High volume metastatic disease</td>
<td>presence of visceral metastases and/or greater than or equal to four bone metastases with at least one outside of the vertebral column and pelvis</td>
</tr>
<tr>
<td>High-risk metastatic disease</td>
<td>disease that has a poorer prognosis in the presence of two of the three following high-risk features: Gleason &gt;8, &gt;3 bone lesions, or measurable visceral metastases</td>
</tr>
<tr>
<td>De novo metastatic disease</td>
<td>metastatic disease that is present at the time of initial prostate cancer diagnosis rather than recurring after previous treatment of localized cancer</td>
</tr>
</tbody>
</table>

| **DISEASE MANAGEMENT** | |
| PSA doubling time | the number of months required for the PSA value to increase two-fold |
| Conventional imaging | CT, MRI, and 99mTc-methylene diphosphonate bone scan |

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ADT: androgen deprivation therapy; CT: computed tomography; HRR: homologous recombination repair; LHRH: luteinizing hormone-releasing hormone; mCRPC: metastatic castration-resistant prostate cancer; MRI: magnetic resonance imaging; PET: positron emission tomography; PSA: prostate specific antigen
BIOCHEMICAL RECURRENCE WITHOUT METASTATIC DISEASE

Prognosis
Clinicians SHOULD
Inform patients regarding the risk of developing metastatic disease and follow patients with serial PSA measurements and clinical evaluation
Perform periodic staging evaluations consisting of cross sectional imaging (CT, MRI) and technetium bone scan in patients who are at higher risk for development of metastases

Clinicians MAY
Utilize novel PET-CT scans as an alternative to or in the setting of negative conventional imaging
Consider radiographic assessments based on overall PSA and PSA kinetics

METASTATIC HORMONE SENSITIVE PROSTATE CANCER

Prognosis
Clinicians SHOULD
Assess the extent of metastatic disease (bone, lymph node and visceral metastasis) using conventional imaging
Assess the extent of metastatic disease (high versus low volume)
Assess if the patient is experiencing symptoms from metastatic disease
Obtain a baseline PSA and serial PSAs at a minimum of three to six month intervals after initiation of ADT and consider periodic conventional imaging
Offer genetic counseling and germline testing regardless of age and family history

NON-METASTATIC CASTRATION RESISTANT PROSTATE CANCER

Prognosis
Clinicians SHOULD
Obtain serial PSA measurements at three to six month intervals and calculate PSA doubling time starting at time of development of castration-resistance
Assess for development of metastatic disease using conventional imaging at intervals of six to twelve months

METASTATIC CASTRATION RESISTANT PROSTATE CANCER

Prognosis
Clinicians SHOULD
Obtain baseline labs and review location of metastatic disease, disease-related symptoms, and performance status
Assess the extent of metastatic disease using conventional imaging at least annually or at intervals determined by lack of response to therapy
Offer germline and somatic tumor genetic testing

2. Establish a multidisciplinary care team and define roles and responsibilities of team members.

With the growing availability of novel agents to treat APC, it is becoming increasingly important that clinics take a multidisciplinary approach to patient care. Such team-based care offers a number of benefits for the patient:

- Increased access to specialists with specific expertise in all treatment options
- Greater access to clinical trial opportunities
- Improved response to supportive care needs
- Reduced duplication of efforts across multiple physicians (eg, labwork, imaging)

While practice constraints will likely determine the members of the multidisciplinary team, patients should be made aware of all treatment options and may be offered referral to appropriate care providers based on treatment decisions and supportive care needs.

Each member of the healthcare team should maintain a full understanding of the patient's treatment plan and know his or her role in the execution of that plan. These will generally fall into three categories:

1. Primary physicians: The urologist is well equipped to serve as the patient’s primary APC care provider; however, other specialties including medical and radiation oncology may also be included on the primary care team based on the patient’s chosen treatment plan.

2. Supportive care: The members of the supportive care arm may address disease- and treatment-related side effects or aid in the interpretation of medical information used by the primary physicians.

3. Support staff: The support staff is largely responsible for the coordination of care and ensuring that patients have both education on and access to appropriate care.

Whether a practice is able to support a fully integrated multidisciplinary program in-house or a virtual multidisciplinary program, the goal is patient-centered care from providers with appropriate expertise in the patient’s chosen treatment plan. One tool to further promote the coordination of multidisciplinary care is the tumor board. Either in-person or virtual, a tumor board can provide an excellent opportunity for in-depth discussion of patient cases, formulation of treatment recommendations, and healthcare planning.
As highlighted in the initial survey of healthcare providers, discrepancies in understanding of the roles and responsibilities of each team member are not uncommon. While there may be slight overlap, it is important that each practice clearly defines the roles and responsibilities of each healthcare provider in their interactions with APC patients to prevent oversight of key patient care.

3. **Identify and collect information on key measures of care and solicit patient feedback.**

Once a practice has made the decision to follow certain clinical guidelines, it’s important to measure adherence to those guidelines to ensure that patients are receiving the highest quality of care as defined by the practice. For example, if a practice is looking to focus on prompt identification of APC patients and earlier detection of metastatic disease, the practice may closely review physician adherence to recommended prognostic guidelines. Such practices may make it an early priority to look at performance related to radiographic assessments and procurement of appropriate labwork.

Once a practice has identified areas of measure and set immediate and long-term goals for adherence, process improvements may be identified to push the practice toward greater compliance. Much of this may be driven by the practice champions with input from all other members of the practice, including the healthcare providers, administrative staff, and executive team.

It should be noted that clinical data is only one indicator of overall patient experience. As such, it is important to provide opportunities for patients to provide direct feedback both on their overall well-being and on aspects of their treatment plan. This information can be quite valuable in determining where to direct practice resources dedicated to supportive care. While clinicians often focus on the physical effects of cancer and treatment, emotional stress related to diagnosis and treatment is usually quite common, though discussed less frequently. There are a number of readily available tools to gauge emotional well-being that may be incorporated into a practice’s existing system for discussing physical well-being.

4. **Incorporate supportive care as necessary to provide a holistic care model.**

Patients undergoing treatment for APC may experience a number of disease- and treatment-related side effects, both physical and emotional:

- Incontinence
- Erectile dysfunction
- Weight changes
- Pain and weakening of bones
- Depression
- Fatigue

Studies have shown that physicians often inaccurately estimate the influence of these side effects coupled with a cancer diagnosis on patient quality of life. This further echoes the value of soliciting patient feedback. It is important for a practice to understand patient perception of his general well-being and confidence in his current treatment plan because many issues may be alleviated through supportive care. Such information can have an important impact on staffing and overall practice policies. While non-exhaustive, potential supportive care may include the following:

- Nutrition
- Physical Therapy
- Pain Management
- Patient Engagement/Advocacy
- Emotional/Spiritual Support
- Social Services
- Genetic Counseling

While practice resources may limit the onsite availability of supportive care, physicians may offer appropriate referrals to outside sources as necessary.
5. **Provide education to patients and family members.**

Patient and family education is a vital part of healthcare. It is important for patients and their family caregivers to recognize that there are options when it comes to care. A patient who understands and has confidence in his treatment plan is more likely to follow through with that treatment plan. Information should be provided to better allow the patient to understand his diagnosis and specific cancer type. Further information should be given on all available treatment options and the potential benefits and harms of each. If a patient is aware of potential side effects, he may be more proactive in seeking supportive care to alleviate potential treatment-related side effects and continue with his treatment. Some patients may benefit greatly from a simple list of questions that can be used in discussion with physicians to guide shared decision-making.

*Figure 7: Patient Questions (General)*

<table>
<thead>
<tr>
<th>DIAGNOSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ How advanced is my prostate cancer?</td>
</tr>
<tr>
<td>How fast is it growing?</td>
</tr>
<tr>
<td>□ What does a change in my PSA mean?</td>
</tr>
<tr>
<td>□ Has my cancer spread outside my prostate?</td>
</tr>
<tr>
<td>□ What tests are used to see if my cancer spreads?</td>
</tr>
<tr>
<td>□ Can you explain my pathology report?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ What are my options for hormone treatment?</td>
</tr>
<tr>
<td>□ What treatments do you recommend for me?</td>
</tr>
<tr>
<td>□ Is observation an option for me?</td>
</tr>
<tr>
<td>□ Am I eligible for any clinical trials?</td>
</tr>
<tr>
<td>□ What side effects are associated with treatment?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUPPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Will my insurance cover my treatment costs?</td>
</tr>
<tr>
<td>□ How can I obtain my medication?</td>
</tr>
<tr>
<td>□ Can I obtain a second opinion?</td>
</tr>
<tr>
<td>□ Can you provide information on patient support groups?</td>
</tr>
<tr>
<td>□ Are support services available for my family?</td>
</tr>
</tbody>
</table>

In providing patient education, a practice should determine a patient’s preferences for such material. This may come in a number of forms, including hardcopy books and pamphlets, or online education. Many resources may be easily accessed online through organizations such as ZERO and the Urology Care Foundation. Additional considerations should be made to potential language barriers or hearing or vision impairments so that educational materials can be tailored to meet such needs.

6. **Use technology to support clinical work and patient care.**

There are multiple ways to leverage existing technology (eg, EHR systems, data analysis software) to promote better patient care. Such initiatives may include analysis of patient clinical data for the earlier identification of APC patients, integration of clinical pathways to promote adherence to evidence-based care, and incorporation of clinical trial information to provide eligible patients access to appropriate research opportunities.

Technology is a valuable tool that may help streamline patient care and can be used to lead discussion during patient visits. For example, practices may use their EHR systems to populate checklists of appropriate treatment options for patients to ensure both compliance with clinical practice guidelines and thorough discussion of all available treatment options. Organized by disease stage, options may be further delineated based on exposure to previous therapies, PSA kinetics, imaging, symptomatology, and comorbidities. Having such a prepopulated list may help guide shared decision-making with final treatment choices based on treatment goals, patient concerns, and cancer control.
<table>
<thead>
<tr>
<th>Disease Stage</th>
<th>Treatment Options*</th>
</tr>
</thead>
</table>
| Rising PSA with no radiographic evidence of metastatic disease | □ Observation  
□ Clinical trial enrollment  
□ Hormone therapy |
| Metastatic hormone-sensitive disease | □ Hormone therapy  
□ Androgen-synthesis inhibitor  
□ Second-generation anti-androgen (androgen receptor inhibitor)  
□ Chemotherapy  
□ Radiotherapy |
| Nonmetastatic castration-resistant disease | □ Hormone therapy  
□ Second-generation anti-androgen  
□ Observation |
| Metastatic castration-resistant disease | □ Hormone therapy  
□ Androgen-synthesis inhibitor  
□ Second-generation anti-androgen  
□ Chemotherapy  
□ Immunotherapy  
□ Radiopharmaceutical  
□ PARP inhibitor |

*Note, only select therapies may be recommended within each treatment class for specific disease stages. Clinicians should refer to full clinical guidelines for specific recommendations.

There is a wealth of information housed within a practice’s EHR system, and there are a number of software programs available to mine that data for use in ongoing practice evaluation. While patient medical information is essential to the clinical side of care, that information may also be used to identify areas of need within a practice and drive quality improvement efforts.

**FINAL THOUGHTS**

Quality improvement is a continual process. Each of the programs highlighted in the case study series noted ongoing work on this front and recognize the importance of process review and implementation of change based on patient needs. While efforts will look different for each individual practice, one commonality is shared concern for overall patient well-being and a dedication to upholding the highest standards of patient care.

**References**
