Metastatic Prostate Cancer

An update on treatments and a review of patient symptom management

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BACKGROUND: Although available treatment options have brought about improvements in overall survival and contributed to delayed progression, metastatic prostate cancer remains incurable. Treatment strategies are based on disease progression assessed by a combination of biochemical, radiographic, and symptomatic changes.

OBJECTIVES: The aim of this article is to review metastatic prostate cancer, symptoms representing disease progression, disease treatments, and symptom management.

METHODS: A PubMed® search restricted to English-language articles published since 1990 was conducted in August 2018 with combinations of the keywords "metastatic prostate cancer," "symptom assessment," and "treatment." Review articles retrieved were excluded, but lists of references cited in them were reviewed to identify additional articles for inclusion. Information from relevant articles published after August 2018 was added as appropriate based on author consensus.

FINDINGS: Nursing professionals play vital roles in symptom recognition and reporting, identification of disease progression, patient education, and implementation of individualized treatment strategies.

KEYWORDS
metastatic prostate cancer; symptom assessment; nursing professionals

THE BURDEN OF PROSTATE CANCER IS SIGNIFICANT. Worldwide, it was the fourth most frequently diagnosed cancer type, with an estimated incidence of 1.27 million cases, and was ranked eighth among causes of cancer-related deaths, with an estimated 358,989 deaths among men in 2018 (International Agency for Research on Cancer & World Health Organization, 2018). In the United States, it is the leading cancer type among men in terms of incidence, with an estimated 191,930 new cases diagnosed in 2020, and the second most frequent cause of cancer-related death among men, with an estimated 33,330 deaths in 2020 (Siegel et al., 2020). At diagnosis, the disease is local, regionally disseminated, or distant in 78%, 12%, and 5% of men, respectively (Siegel et al., 2020). Estimates from Europe indicate that prostate cancer ranks fourth among the most frequently diagnosed cancer types overall, with an estimated 450,000 new cases being diagnosed in 2018 (Ferlay et al., 2018). Estimates indicate that prostate cancer will account for 78,800 deaths in Europe in 2020 (Carioli et al., 2020).

Despite therapies that have improved survival and delayed progression, metastatic prostate cancer remains incurable (Chi et al., 2019; Davis et al., 2019; Fizazi et al., 2017, 2019; Hussain et al., 2018; James et al., 2016; Parker et al., 2018; Smith et al., 2018). Disease progression, determined by biochemical, radiographic, and symptomatic changes (Saad et al., 2018; Scher et al., 2016), drives treatment decisions. As members of interprofessional teams, nurses provide assessments and symptom management in a safe and cost- and time-efficient manner (Drudge-Coates et al., 2019). This article provides an update about prostate cancer treatment management.

Disease Course

Disease progression in prostate cancer occurs in stages characterized by the development of metastases over time and appearance of symptoms. Localized prostate cancer is curable, with five-year survival rates being close to 100% (Siegel et al., 2018). Although prostate cancer that recurs after localized therapy is initially responsive to androgen deprivation therapy (ADT) involving surgical or chemical castration or nonsystemic salvage treatments (i.e., radiation therapy, surgery, or ablation), the disease progresses eventually within five years (Crawford et al., 2017). This

stage, known as castration-resistant prostate cancer (CRPC), is classified as nonmetastatic CRPC (nmCRPC) if characterized by the lack of detectable disease at the primary location, lack of involvement of lymph nodes as detected by computed tomography or magnetic resonance imaging, or lack of detectable disease in bone or visceral organs (Mateo et al., 2019). Antiandrogen therapies apalutamide (Chi et al., 2019; Smith et al., 2018), enzalutamide (Davis et al., 2019; Hussain et al., 2018), and darolutamide (Fizazi et al., 2019) offer the promise of improved metastasis-free survival in patients with nmCRPC (see Tables 1 and 2).

nmCRPC eventually progresses to metastatic CRPC (mCRPC), characterized by the appearance of metastases in addition to a rise in serum prostate-specific antigen (PSA) levels. To best determine disease progression, providers evaluate PSA levels, clinical symptoms, and radiographic evidence (Karzai et al., 2015). The time for progression from nmCRPC to mCRPC varies, with 60% of men being reported to develop metastases within five years and most of these metastases occurring within the first 36 months (Moreira et al., 2016). mCRPC is incurable, despite the availability of multiple classes of therapeutic agents, including taxanes (e.g., docetaxel, cabazitaxel), antihormonal therapies (e.g., enzalutamide, abiraterone), immunotherapy (e.g., sipuleucel-T), and targeted alpha therapy (e.g., radium-223) (Dong et al., 2019). The median overall survival in patients with newly diagnosed mCRPC is about 42 months (James et al., 2015). Five-year survival among men with distant metastases in the United States is 30% (Siegel et al., 2018).

It has been shown that men with prostate cancer often do not understand the information given regarding the diagnosis of prostate cancer, its treatment, and subsequent side effects, such as sexual function, continence, and fatigue; such lack of knowledge has been shown to lead to anger, fear, and uncertainty for patients (Carter et al., 2011).

mCRPC Sequelae

Bone Metastases

Although prostate cancer can metastasize to the lymph nodes, liver, lungs, and brain, it predominantly spreads to bone, with evidence of bone metastases having been documented in as many as 90% of men with advanced prostate cancer (Gandaglia et al., 2015; Walz et al., 2019). Of 8,820 men with mCRPC enrolled in phase 3 clinical trials from 1999 to 2012, 73% had bone metastases at study entry and 43% had only bone metastases (Halabi et al., 2016). In the initial stages, bone metastases are frequently asymptomatic (Drudge-Coates et al., 2018).

Once metastasis to the bone has occurred, a complex interaction between tumor cells, bone cells, and the bone microenvironment results in bone remodeling (Kolb & Bussard, 2019). Although bone metastases are traditionally thought of as being osteoblastic, based on their radiographic appearance, it is now clear that osteoblastic (bone formation) and osteoclastic (bone resorption) processes are dysregulated in patients who have bone metastases (Kolb & Bussard, 2019; Suominen et al., 2017).

"Despite therapies that have improved survival and delayed progression, metastatic prostate cancer remains incurable."

Bone metastases are associated with significant morbidity and increased mortality (Scher et al., 2015). Other symptoms of bone metastases include spinal cord compression, which may sometimes be the first sign of malignancy (Wänman et al., 2017), and bone fractures. Pain necessitating radiation therapy, spinal cord compressions, bone fractures, and surgery to the bones are collectively referred to as symptomatic skeletal-related events (SSEs) and have a detrimental effect on quality of life, in addition to being associated with enhanced mortality (Howard et al., 2016; Walz et al., 2019). In a survey that examined symptom burden in patients with mCRPC, of whom more than half had bone metastases, 73% reported fatigue, 63% reported urinary symptoms (difficulties/incontinence), 62% reported sexual dysfunction, and 52% reported bone pain as being the most commonly occurring symptoms (Drudge-Coates et al., 2018).

Fatigue

As the most prevalent symptom, fatigue has been shown to be the most distressing symptom experienced by patients with mCRPC, and it is one of the major symptoms negatively affecting quality of life (Rodríguez Antolín et al., 2019). Vigilant assessment of fatigue allows prompt management using interventions such as resistance training combined with aerobic exercise, which can optimize patient quality of life (Baguley et al., 2017; Taaffe et al., 2017). For example, physical exercise has been shown to significantly reduce fatigue and increase vitality in men undergoing treatment with ADT, with patients reporting the highest levels of fatigue and lowest vitality having the greatest benefits (Taaffe et al., 2017).

IMPLICATIONS FOR PRACTICE

- Manage metastatic prostate cancer, which involves a combination of biochemical and radiographic treatments, with an interprofessional plan of care.
- Contribute to the plan of care by administering treatments, providing patient education, and managing disease and treatment symptoms.
- Assess patients as their disease progresses and promptly manage symptoms associated with disease and treatment.

Treatment of mCRPC

Treatment decisions for patients with mCRPC are based on symptoms, patient performance status, and extent of disease (Lowrance et al., 2016; Saad et al., 2015). Symptoms suggesting disease progression include cancer-related pain, analgesic use, and deterioration in health-related quality-of-life scores. During the past 30 years, prostate cancer treatments have progressed; in the past 15 years, treatments for mCRPC have included docetaxel, abiraterone, enzalutamide, and radium-223. Table 3 reviews treatment management of CRPC. Use of these therapeutic agents is based on guidelines published by the Canadian Urological Association, European Association of Urology, European Society for Medical Oncology (ESMO), and National Comprehensive Cancer Network in the United States (ESMO, 2019; Mohler et al., 2019; Mottet et al., 2019; Saad et al., 2015).

Before 2018, the only approved treatment for metastatic castration-sensitive prostate cancer (mCSPC) and nmCRPC was ADT. However, several agents have been approved during the past two years based on findings of large pivotal phase 3 trials. Patients with newly diagnosed metastatic prostate cancer (hormone-sensitive) can be given ADT with abiraterone or docetaxel, and options for patients with mCRPC include abiraterone, enzalutamide, radium-223, docetaxel, cabazitaxel, and sipuleucel-T (United States only). For patients with nmCRPC, the therapeutic options are the hormonal therapies enzalutamide, apalutamide, and darolutamide.

TABLE 1.
EVOLUTION OF APPROVED TREATMENTS AND THERAPIES FOR PROSTATE CANCER

YEAR	APPROVED TREATMENT/THERAPY	TREATMENT/THERAPY TYPE
1989	Flutamide	Antihormonal therapy
1989	Goserelin	Androgen deprivation therapy
1989	Leuprolide	Androgen deprivation therapy
1993	Strontium-89	Palliative agent
1995	Bicalutamide	Antihormonal therapy
1996	Mitoxantrone	Palliative agent
1997	Samarium-153	Palliative agent
2000	Triptorelin	Androgen deprivation therapy
2001	Zoledronic acid	Bone health agent
2004	Docetaxel	Chemotherapy
2010	Cabazitaxel	Chemotherapy
2010	Denosumab	Bone health agent
2010	Sipuleucel-T (United States only)	Immunotherapy
2011	Abiraterone (mCRPC)	Novel antihormonal therapy
2012	Enzalutamide (mCRPC)	Novel antihormonal therapy
2013	Radium-223	Targeted alpha therapy
2018	Abiraterone (mCSPC)	Novel antihormonal therapy
2018	Apalutamide (nmCRPC)	Novel antihormonal therapy
2018	Enzalutamide (nmCRPC)	Novel antihormonal therapy
2019	Darolutamide (nmCRPC)	Novel antihormonal therapy

Note. Based on information from National Cancer Institute, 2019.
mCRPC—metastatic castration-resistant prostate cancer; mCSPC—metastatic castration-sensitive prostate cancer; nmCRPC—nonmetastatic castration-resistant prostate cancer

Treatment Complications

Patients with mCRPC are at an elevated risk for bone-related complications (Litwin & Tan, 2017). In addition, the evolving treatment landscape in prostate cancer leads to prolonged exposure to antihormonal therapy and ADT, which are associated with a heightened risk of osteoporosis and fractures (Joseph et al., 2019; Poulsen et al., 2019; Rachner et al., 2018). Patients receiving ADT experience a higher rate of bone loss (2%–5% per year), with the relative risk of bone fractures increasing by 21%–54% with longer ADT treatment durations (Cianferotti et al., 2017; Rachner et al., 2018). Therefore, patients with mCRPC and those receiving ADT and antihormonal therapy are periodically assessed for fracture risk so that a management plan can follow. Treatment with bone health agents is recommended for osteoporosis prophylaxis or when the absolute fracture risk warrants drug therapy, although patients are also required to be monitored for osteonecrosis of the jaw, which is a potential adverse effect of agents used for treatment of prostate cancer. Supportive bone health agents recommended for patients with mCRPC and those on antihormonal therapies include zoledronic acid (a bisphosphonate) and denosumab, which prevent bone resorption and help delay and prevent SSEs (ESMO, 2019; Mohler et al., 2019; Mottet et al., 2019).

In addition, patients on ADT can experience a number of adverse effects, including hot flashes from andropause syndrome, night sweats, gynecomastia (breast enlargement), cognitive decline, and changes in sexual function, which can have a negative effect on a patient's quality of life (Basketter et al., 2018).

Symptom Management

According to a global survey of patients and caregivers, fatigue, urinary symptoms, impaired sexual function, bone pain, and difficulty sleeping are the most frequent patient-reported symptoms in men with mCRPC (Drudge-Coates et al., 2018). When determining treatments, providers consider the patient's

TABLE 2.
APPROVED TREATMENTS FOR PROSTATE CANCER: RESULTS FROM PHASE 3 TRIALS

AGENT	INDICATION	TRIAL ACRONYM	COMPARATOR	RESULTS	REFERENCE
Abiraterone plus prednisone added to androgen deprivation therapy	Newly diagnosed metastatic castration-sensitive prostate cancer	LATITUDE	Placebo	■ Significantly higher OS: HR for death with abiraterone versus placebo was 0.62 (95% CI [0.51, 0.76]; p < 0.001). ■ Significantly higher radiographic PFS with abiraterone (33 months) versus placebo (14.8 months); HR for disease progression/death was 0.47 (95% CI [0.39, 0.55]; p < 0.001). ■ Rates of grade 3 hypertension and hypokalemia higher among patients receiving abiraterone	Fizazi et al., 2017
Apalutamide	Nonmetastatic castration-resistant prostate cancer at high risk for metastasis	SPARTAN	Placebo	■ Significantly longer median metastasis-free survival with apalutamide (40.5 months) versus placebo (16.2 months); HR for metastases/death = 0.28 (95% CI [0.23, 0.35]; p < 0.001) ■ Significantly longer time to symptomatic progression with apalutamide: HR = 0.45 (95% CI [0.32, 0.63]; p < 0.001) ■ Adverse events occurring more frequently with apalutamide than with placebo: rash (24% versus 6%), hypothyroidism (8% versus 2%), and fractures (12% versus 7%)	Smith et al., 2018
Enzalutamide	Nonmetastatic castration-resistant prostate cancer with rapidly rising PSA levels	PROSPER	Placebo	■ Significantly (71%) lower risk of metastasis or death with enzalutamide versus placebo ■ Median metastasis-free survival longer with enzalutamide (36.6 months) than with placebo (14.7 months); HR for metastases/death = 0.29 (95% CI [0.24, 0.35]; p < 0.001) ■ Adverse events ranked grade 3 or higher seen in 31% and 23%, respectively, of patients receiving enzalutamide and placebo	Hussain et al., 2018
Apalutamide plus androgen deprivation therapy	Metastatic castration-sensitive prostate cancer	TITAN	Placebo plus androgen deprivation therapy	■ Significantly longer radiographic PFS and OS with apalutamide versus placebo: percentage of patients with radiographic PFS at 24 months in the apalutamide and placebo groups was 68% and 48%, respectively (HR for radiographic progression/death = 0.48; 95% CI [0.39, 0.6]; p < 0.001); OS at 24 months seen in 82% and 74% of patients, respectively (HR for death: 0.67, 95% CI [0.51, 0.89]; p = 0.005) ■ Grade 3 or 4 adverse events experienced by 42% and 41% of patients in the respective groups; rash more common in the apalutamide group	Chi et al., 2019
Enzalutamide	Metastatic castration-sensitive prostate cancer in patients receiving testosterone suppression	ENZAMET	Standard first-line therapy	■ Significantly longer PFS with enzalutamide (174 progression events) versus standard care (333 progression events); HR = 0.39; p < 0.001 ■ Significantly longer OS at 34 months (102 and 143 deaths, respectively, in the two groups); HR = 0.67; 95% CI [0.52, 0.86]; p = 0.002 ■ More patients in enzalutamide group discontinued treatment because of adverse events (33 versus 14 events in standard-care group) ■ Fatigue more common in the enzalutamide group ■ Seizures documented among 1% of patients and no patients, respectively, in the two groups	Davis et al., 2019
Darolutamide	Nonmetastatic castration-resistant prostate cancer	ARAMIS	Placebo	■ Significantly longer metastasis-free survival with darolutamide and similar incidence of adverse events compared with placebo ■ Median metastasis-free survival higher with darolutamide (40.4 months) versus placebo (18.4 months); HR for metastasis/death with darolutamide group was 0.41 (95% CI [0.34, 0.5]; p < 0.001). ■ Frequency of adverse events occurring in more than 5% of patients or of grade 3 or higher was similar in the two groups. ■ 8.9% and 8.7% patients in the two groups, respectively, discontinued treatment because of adverse events. ■ Treatment with darolutamide did not result in higher incidence of seizures, falls, fractures, cognitive disorders, or hypertension.	Fizazi et al., 2019

CI—confidence interval; HR—hazard ratio; OS—overall survival; PFS—progression-free survival; PSA—prostate-specific antigen

TABLE 3.
CRPC TREATMENT MANAGEMENT REVIEW

TREATMENT/ MANAGEMENT STRATEGY	TREATMENT/MECHANISM OF ACTION	POTENTIAL PATIENT CONCERNS RELATED TO TREATMENT	COMMUNICATION POINTS FOR NURSES	REFERENCES
nmCRPC				
■ Androgen deprivation therapy and novel antihormonals ■ Screening for bone and visceral metastases based on prostate-specific antigen doubling time	■ Enzalutamide: androgen receptor inhibitor ■ Apalutamide: androgen receptor inhibitor ■ Darolutamide: androgen receptor inhibitor	■ Enzalutamide: fatigue[a], hypertension/cardiovascular events, hot flashes, nausea, diarrhea, mental impairment disorders (e.g., memory impairment, cognitive disorders, attention disturbances), falls, constipation ■ Apalutamide: fatigue[b], hypertension, rash, diarrhea, nausea, weight loss, arthralgia, falls ■ Darolutamide: fatigue[c], back pain, arthralgia, diarrhea, hypertension, constipation, pain in extremities, anemia, hot flashes, nausea	■ Enzalutamide: activity levels, cardiac health, bowel health, mental health ■ Apalutamide: activity levels, bowel health, bone health, sexual dysfunction/decreased libido ■ Darolutamide: activity levels, bowel health, pain, cardiac health	Heidegger et al., 2020; Hussain et al., 2018; Mateo et al., 2019; Mohler et al., 2019; Traboulsi & Saad, 2018
mCRPC				
■ Abiraterone acetate ■ Enzalutamide ■ Docetaxel	■ Abiraterone: inhibitor of androgen biosynthesis ■ Enzalutamide: androgen signaling pathway inhibitor ■ Docetaxel: inhibitor of growth and spread of cancer cells	Alopecia, fatigue, febrile neutropenia, abnormal cholesterol levels; also see information pertaining to enzalutamide in previous row.	Regrowth of hair occurs after treatment in most cases. Activity levels, infection prevention, G-CSF (e.g., filgrastim, pegfilgrastim), cholesterol levels	dela Rama & Pratz, 2015; Dong et al., 2019; Dreicer, 2014; Mohler et al., 2019; Saad et al., 2015
mCRPC with symptoms				
■ Docetaxel ■ Radium-223	■ Docetaxel: inhibitor of growth and spread of cancer cells ■ Radium-223: calcium mimetic bone-targeting alpha emitter with survival benefit	Alopecia, fatigue, febrile neutropenia; radium-223: effect on ability to interact with family, including children, grandchildren, and pregnant relatives	Regrowth of hair occurs after treatment in most cases. Activity levels, infection prevention, G-CSF (e.g., filgrastim, pegfilgrastim); radium-223: explanation of relative range and penetration of different types of ionizing radiation, showing that α emitters, such as radium-223, do not preclude patient–family interactions because they have least penetration and range and can be stopped by an object even as thin as a sheet of paper	dela Rama & Pratz, 2015; Mohler et al., 2019; Saad et al., 2015; Suominen et al., 2017
mCRPC with progression on docetaxel				
■ Cabazitaxel ■ Abiraterone acetate ■ Enzalutamide ■ Radium-223 ■ Docetaxel plus prednisone in previous respondents (unknown survival benefit); mitoxantrone plus prednisone for palliative pain relief	■ Cabazitaxel: inhibitor of growth and spread of cancer cells ■ Abiraterone: inhibitor of androgen biosynthesis ■ Enzalutamide: androgen signaling pathway inhibitor ■ Radium-223: calcium mimetic bone-targeting alpha emitter with survival benefit	Nausea/vomiting, fatigue, diarrhea, alopecia, febrile neutropenia, unusual bleeding; also see information pertaining to enzalutamide in previous rows; radium-223: effect on ability to interact with family, including children, grandchildren, and pregnant relatives	Activity levels, nutrition, bowel health, regrowth of hair occurs after treatment in most cases, infection prevention, G-CSF (e.g., filgrastim, pegfilgrastim); radium-223: explanation of relative range and penetration of different types of ionizing radiation, showing that α emitters, such as radium-223, do not preclude patient–family interactions because they have least penetration and range and can be stopped by an object even as thin as a sheet of paper	dela Rama & Pratz, 2015; Mohler et al., 2019; Saad et al., 2015

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TABLE 3. *(CONTINUED)*
CRPC TREATMENT MANAGEMENT REVIEW

TREATMENT/ MANAGEMENT STRATEGY	TREATMENT/MECHANISM OF ACTION	POTENTIAL PATIENT CONCERNS RELATED TO TREATMENT	COMMUNICATION POINTS FOR NURSES	REFERENCES
CRPC and bone metastases (pre- and post-chemotherapy)				
■ Denosumab ■ Zoledronic acid ■ Calcium and vitamin D supplementation	■ Denosumab: monoclonal antibody that prevents bone loss ■ Zoledronic acid: bisphosphonate that slows down bone resorption ■ Calcium and vitamin D supplementation: augment action of denosumab and zoledronic acid	Fatigue, anemia, myalgia, nausea/vomiting, cough/shortness of breath	Activity levels, nutrition, blood counts, pain management	Gartrell et al., 2015; Rachner et al., 2018; Suzman et al., 2014; Walz et al., 2019

[a] Common adverse events of any grade occurring in 5% or more of participants in the enzalutamide group in a phase 3 trial have been listed (Hussain et al., 2018).
[b] Common adverse events of any grade occurring in 15% or more of participants in the apalutamide group in a phase 3 trial have been listed (Smith et al., 2018).
[c] Common adverse events of any grade occurring in 5% or more of participants in the darolutamide group in a phase 3 trial have been listed (Fizazi et al., 2019).
CRPC—castration-resistant prostate cancer; G-CSF— granulocyte–colony-stimulating factor; mCRPC—metastatic castration-resistant prostate cancer; nmCRPC—nonmetastatic castration-resistant prostate cancer

symptoms (Lowrance et al., 2016; Saad et al., 2015). Providers also evaluate symptoms when determining changes in treatment (Saad et al., 2018). When determining progression, providers consider biochemical (e.g., higher PSA levels), radiographic (e.g., changes on computed tomography and bone scans), and clinical factors (e.g., heightened symptoms) (Saad et al., 2018; Scher et al., 2016).

Pain is a symptom that is consistently associated with reduced survival (Broder et al., 2015; Saad et al., 2018). Patients rank pain as a major challenge associated with metastatic prostate cancer (Drudge-Coates et al., 2018). Because pain is subjective, patients may delay reporting pain changes to providers because they may perceive pain as a sign of disease progression (Drudge-Coates et al., 2018; Saad et al., 2018). In addition, patients may be uncertain about whether their pain is related to their cancer or to other causes, such as aging or arthritis. Other symptoms associated with progression are fatigue, urinary symptoms, impaired sexual function, bone pain, and difficulty sleeping (Drudge-Coates et al., 2018). These symptoms may be experienced differently at the various disease stages (Saad et al., 2018). For patients with mCRPC in clinical trials, guidelines recommend reporting a core set of patient-reported symptoms so that symptom management interventions can be studied; these include urinary incontinence, urinary obstruction and irritation, bowel-related symptoms, sexual dysfunction, and hormonal symptoms for patients with localized prostate cancer and pain, fatigue, mental well-being, and physical well-being (Chen et al., 2014).

Symptom Assessment Instruments

Several symptom assessment instruments focus on the clinical care of patients with metastatic prostate cancer (Saad et al., 2018). The Functional Assessment of Cancer Therapy–Prostate, which is applicable across all disease stages, consists of 27 core items that assess patient function in four domains: physical, social/family, emotional, and functional well-being, addressing issues including those related to sexuality, bowel/bladder function, and pain (Esper et al., 1997). The questionnaire is designed for patient self-administration and can be completed by patients prior to their clinical appointment, thereby helping nurses and clinicians address issues as part of the clinical consultation. It also can be used repeatedly to assess the success of an intervention.

The Brief Pain Inventory, which is available in short- and long-form versions (with 9 and 17 items, respectively), is a validated tool that permits the capture of detailed descriptions of pain using a visual analog scale and can be self-administered by patients (Daut et al., 1983; Poquet & Lin, 2016). In addition, it provides an anatomic drawing of the human form from which patients can mark where their pain is located. It can be used free of charge in clinical practice, and instructions for its use and scoring are available (Poquet & Lin, 2016).

The Edmonton Symptom Assessment System, which is also amenable to self-administration and captures levels of pain, activity, nausea, depression, anxiety, drowsiness, appetite, and sensation of well-being, is brief and helps identify areas of concern, engage patients in their symptom assessment, and monitor symptom changes over time (Bruera et al., 1991; Schulman-Green et al., 2010). However, inclusion rules and frequency of assessments were unclear, and there were difficulties in interpreting the numeric symptom rating scale.

The Expanded Prostate Cancer Index Composite (EPIC) tool was developed by expanding the 20-item University of California–Los Angeles Prostate Cancer Index to a 50-item instrument that measures a wide range of urinary, bowel, sexual, and hormonal symptoms (Wei et al., 2000). A shortened 26-item version, EPIC-26, was developed and validated to retain the ability to measure the same five prostate cancer–specific quality-of-life domains as

FIGURE 1.
SIMPLIFIED MULTI-ITEM CHECKLIST FOR SYMPTOM ASSESSMENT IN PATIENTS WITH PROSTATE CANCER

MOBILITY

Rate your ability to move and walk. (Circle one number.)

I HAVE NO PROBLEMS WALKING.										I AM UNABLE TO WALK.
0	1	2	3	4	5	6	7	8	9	10

USUAL ACTIVITIES (E.G., WORK, STUDY, HOUSEWORK, FAMILY OR LEISURE ACTIVITIES)

Rate your ability to do your usual activities. (Circle one number.)

I HAVE NO PROBLEM DOING MY USUAL ACTIVITIES.										I AM UNABLE TO DO MY USUAL ACTIVITIES.
0	1	2	3	4	5	6	7	8	9	10

SLEEP

Rate your quality of sleep. (Circle one number.)

BEST-QUALITY SLEEP										NO SLEEP AT ALL
0	1	2	3	4	5	6	7	8	9	10

QUALITY OF LIFE

Rate how good or bad your overall quality of life has been in the past month. (Circle one number.)

BEST QUALITY OF LIFE										WORST QUALITY OF LIFE
0	1	2	3	4	5	6	7	8	9	10

PAIN

Have you felt any pain in your bones (e.g., spine, back, shoulder, hip) or joints since your last visit? (Circle yes or no.)

LEVEL OF PAIN

How would you rate your pain? (Circle one number.)

NO PAIN										PAIN AS BAD AS I CAN IMAGINE
0	1	2	3	4	5	6	7	8	9	10

LOCATION OF PAIN

Draw an X on the pictures to show where you have pain.

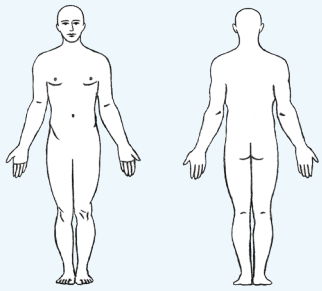

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FIGURE 1. *(CONTINUED)*

SIMPLIFIED MULTI-ITEM CHECKLIST FOR SYMPTOM ASSESSMENT IN PATIENTS WITH PROSTATE CANCER

URINATION

How would you rate your level of discomfort when urinating? (Circle one number.)

NO DISCOMFORT										DISCOMFORT AS BAD AS I CAN IMAGINE
0	1	2	3	4	5	6	7	8	9	10

CURRENT MEDICATION/TREATMENT FOR PAIN

Do you take any medication to relieve your pain? (Circle yes or no.)

- If yes, are you taking any of the following? (Circle any that apply.)
  - ☐ Nonsteroidal anti-inflammatory drugs (e.g., aspirin, acetaminophen, ibuprofen)
  - ☐ Opioids (e.g., codeine, hydrocodone, oxycodone, morphine)
- If you take medication, how often do you take it?
  - ☐ Every few days
  - ☐ 1–2 times a day
  - ☐ More than 2 times a day

Note. From "Symptom Assessment to Guide Treatment Selection and Determine Progression in Metastatic Castration-Resistant Prostate Cancer: Expert Opinion and Review of the Evidence," by F. Saad, F. Pouliot, B. Danielson, C. Catton, and A. Kapoor, 2018, *Canadian Urological Association Journal, 12*(9), p. E418 (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6143507/pdf/cuaj-9-e415.pdf). Copyright 2018 by Canadian Urological Association. Reprinted with permission.

the original 50-item version (Szymanski et al., 2010). However, it does not capture events occurring outside of a clinic visit (Saad et al., 2018).

In 2018, Saad et al. designed a simplified 10-point assessment tool scale that permits patients to rate their mobility, ability to conduct activities of daily living, sleep, overall quality of life, and pain levels, with higher numbers indicating worse symptoms (see Figure 1). According to Saad et al. (2018), this simplified instrument, which has yet to be validated, can be used by patients of any age and education level who are treated in nonacademic medical centers. The instrument includes an outline of the human anatomy so that patients can show where they are in pain.

Implications for Nursing

Nurses are in an ideal position to provide individualized patient care approaches to help patients understand their disease and its implications and enable them to make informed treatment decisions by simplifying the often complex data surrounding the benefits and side effects of treatments. Nurses also can provide holistic support for patients and their families. Developments in treatments have invariably added to the complexity of the decisions that many patients face; therefore, a key role for nurses is encouraging patients to participate in clinical decision making (Basketter et al., 2018). Nurses can also play an essential role in discussing treatment side effects with patients and their partners, and how these can be treated, supported, or minimized, where possible.

Conclusion

Taken together, the discussed studies highlight the importance of symptom recognition and reporting as a means to identify clinical progression, which, in turn, has implications for disease assessment and management. Nursing professionals, being involved in the direct day-to-day care of patients with prostate cancer, are uniquely positioned to play a pivotal role in these important aspects of patient care (symptom recognition and reporting, identification of clinical progression, and intervention to enable implementation of disease stage-specific treatment strategies). To do this efficiently, they will need to be well-informed of the latest advances not only in treatment, but also in symptom assessment and reporting. The advances in treatment and the currently available symptom assessment tools that have been discussed in this article based on expert consensus will better equip nurses to provide optimal levels of patient care.

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