

Problem	Onset	Primary Care Management Options	
Recurrence	Lifelong	Confirm that PSA testing and digital rectal examinations are being done at appropriate intervals: PSA every 6-12 months after prostatectomy or radiation therapy; PSA every 3-6 months during androgen deprivation therapy. Any PSA >0.2 ng/mL or two consecutive rises after surgery are indications for referral to specialist. Referral to radiation therapist is indicated for PSA levels greater than nadir (i.e., lowest level) after radiation, plus 2 ng/mL.	
Symptom assessment	Lifelong	Assess the severity of symptoms due to prostate cancer and its treatments. Shared decision making may help ensure that symptom management is aligned with patient preferences and values. The Expanded Prostate Cancer Index Composite for Clinical Practice (EPIC-CP) is a 1-page, 16-item questionnaire that takes <10 minutes for patients to fill out. It is easy to interpret and measures urinary incontinence, urinary irritation, and the bowel, sexual and hormonal health-related quality of life domains for prostate cancer survivors.	
Communication	Lifelong	Prostate cancer treatment summary and survivorship plans may facilitate transitions between specialty and primary care. Highlighted in such documents would be an information summary needed for the survivor's care beginning immediately after treatment and continuing over time. For example, the treatment received, short and longer term treatment consequences, pharmacologic therapy, medical, surgical and self-management techniques for side effect management are important. Specific information regarding the timing of PSA testing, office visits and imaging (including who is responsible for each service), and instruments to monitor treatment-related symptoms support shared decision making to ensure optimal care coordination and adherence with the survivorship plan. <a href="#">Listening and Talking – Family Communication and Prostate Cancer</a>	
Urine Control (Leaked urine; increased frequency; dysuria; weak stream)	Leaked urine more common after surgery than radiation; symptoms caused by urethral irritation after radiation may occur in the short term, but generally resolve with minimal intervention. Checking post-void residual will diagnose urinary retention due to urethral stricture or other causes.	<p align="center"><b>After surgery</b></p> <p><b>Pharmacologic</b><sup>1,2 (LOE = 0,III)</sup>        For urgency, frequency        Oxybutynin (Ditropan)        Tolterodine (Detrol)        Imipramine (Tofranil)</p> <p><b>Self-management strategies</b>        Limit fluid intake<sup>3 (LOE = 0)</sup>        Avoid bladder irritants (coffee, acidic juices)<sup>3 (LOE = 0)</sup>        Weight loss<sup>3 (LOE = 0)</sup>        Increase physical activity<sup>3 (LOE = 0)</sup>        Smoking cessation<sup>3 (LOE = 0)</sup></p> <p><b>Pelvic floor physical therapy</b>        Pelvic floor exercises (stress incontinence)<sup>2,4 (LOE = I)</sup>        Biofeedback</p> <p><b>Devices</b>        Incontinence pads/undergarments        External Penile Clamp<sup>5 (LOE = I)</sup>, Condom Catheter</p> <p><b>For profound problems refer to urologist to consider further surgery (bulking agents, urethral sling, urinary sphincter).</b><sup>3,6-11 (LOE = II, O, III, III, III, III, III)</sup>  <a href="#">Urine Leaks After Prostate Cancer Treatment</a></p>	<p align="center"><b>After radiation therapy</b></p> <p><b>Pharmacologic</b><sup>1,2 (LOE = 0,III)</sup>        For urgency, frequency        Oxybutynin (Ditropan)        Tolterodine (Detrol)        Tamsulosin (Flomax)        For dysuria        Phenazopyridine</p> <p><b>Self-management strategies</b>        Limit fluid intake<sup>3 (LOE = 0)</sup>,        Keep a urinal next to the bed for nighttime problems        Avoid bladder irritants (coffee, acidic juices)<sup>3 (LOE=0)</sup></p> <p><b>Pelvic floor physical therapy</b>        Pelvic floor exercises (urge incontinence)<sup>2,4 (LOE = I)</sup>, Biofeedback</p> <p><b>Devices</b>        Incontinence pads/undergarments/bed liners        External Penile Clamp<sup>5 (LOE = I)</sup>, Condom Catheter</p> <p><b>If persistent incontinence or gross hematuria, refer to urologist for possible urodynamic evaluation and cystoscopy.</b>  <a href="#">Urine Leaks After Prostate Cancer Treatment</a>  <a href="#">Urine Problems After Radiation</a></p>

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Sexual dysfunction (including ED) (Erections not firm enough; erections not reliable; poor erections; poor orgasm; libido decreased or non-existent)	Variable onset depending on type of treatment – can be immediate (surgery, androgen deprivation) or delayed (radiation).	<p><b>Assess pre-treatment function</b> Evaluate for medications (eg, anti-depressants, beta-blockers) and treatable medical conditions (eg, poorly controlled diabetes, depression, smoking) that may be interfering with erectile function. Assess status of marital/primary relationship to identify psychological issues that may contribute to ED.†</p> <p><b>Pharmacologic</b> Sildenafil<sup>12,13</sup> (LOE = III, 0) (Viagra, Revatio) Tadalafil<sup>13</sup>(LOE = 0) (Cialis) Vardenafil<sup>13</sup> (LOE = 0) (Levitra) - If one is ineffective or side effects are not well tolerated then change to another. Prostaglandin E<sup>14</sup>(LOE = I); Alprostadil (Caverject intracavernosal injection) (Muse- intraurethral pellet)</p> <p><b>Self-management strategies</b> Minimize alcohol and tobacco use, schedule intimacy for when you are well rested and with an empty bladder, stay close to partner through hugging, kissing and cuddling.</p> <p><b>Medical/surgical interventions</b> Vacuum erection device<sup>15,16</sup>(LOE = 0,0) Surgery to place penile prosthesis<sup>17</sup> (LOE = 0) Counseling/therapy (general and/or sexual) at <a href="http://www.aasect.org">www.aasect.org</a></p> <p><a href="#">Sexual Side Effects</a> <a href="#">Sexual Side Effects for Gay and Bisexual Men</a> <a href="#">Feeling Like a Man After Prostate Cancer Treatment</a></p>
Bowel problems (Fecal incontinence, increased urgency to defecate, increased frequency, pain, hematochezia)	Infrequently occurs after radiation; urgency, frequency of defecation may begin to improve soon after completion of therapy.	<p>Dietary changes, evaluate for hemorrhoids and rectal fissure. <i>For blood in stool, referral to GI for colonoscopy to rule out colon cancer, especially if they have not had a screening colonoscopy, may check hemoglobin if there has been persistent blood loss.</i></p> <p><b>Pharmacologic</b> For loose stools - consider short course of Immodium or Lomotil – titrate to effect. For rectal pain/itching - Preparation H, Tucks, Anusol suppositories.</p> <p><b>Self-management strategies</b> Stay well hydrated for constipation and diarrhea, keep stool soft and avoid straining, fiber for constipation.</p> <p><b>Other Strategies</b><sup>18</sup> (LOE = 0) Assess for contributing co-morbidities (eg, IBD); Biofeedback, pelvic floor exercise</p> <p><b>For intractable symptoms refer to prostate cancer or gastrointestinal specialist.</b> <a href="#">Bowel Problems After Radiation</a></p>
Hot Flashes*	After Androgen suppression/Deprivation Therapy (ADT); may persist for up to 2 years even with less than 1 year of ADT	<p><b>Pharmacologic</b> Consider antidepressant therapy, especially if there are elements of depression present [eg, venlafaxine [Effexor], fluoxetine [Prozac], paroxetine [Paxil]],<sup>19</sup> (LOE = 0) Gabapentin<sup>20</sup> (LOE = I) (Neurontin); Megace (megesterol acetate).</p> <p><b>Self-management strategies</b> Wear layered clothing, use cooling fan.</p> <p><b>Other strategies</b> Alternative therapies (Acupuncture, soy, black cohosh, ginseng, licorice, vitamin E).<sup>21,22</sup> (LOE = 0, III)</p> <p><b>Check for possible interactions between alternative therapies and medications.</b> <a href="#">Coping with Hormone Changes from Prostate Cancer Treatment</a></p>



## Michigan Cancer Consortium Recommendations for Prostate Cancer Survivorship Care

Download copies at [www.prostatecancerdecision.org](http://www.prostatecancerdecision.org) Levels of Evidence (LOE) indicated if research available: LOE I = Randomized Controlled Trial; LOE II = Non-randomized Controlled Trial; LOE III = Case Series; LOE O = opinion, observation, literature review, pilot study

Problem	Onset	Primary Care Management Options
		<p>*For prostate cancer survivors treated with ADT, it is important to remember that they may be at increased risk for cardiovascular disease, diabetes, metabolic syndrome and osteoporosis. Prevention includes promoting healthy behaviors (exercise, smoking cessation, caffeine and alcohol reduction)<sup>23(LOE =0)</sup> and supplementation of calcium and vitamin D <sup>24(LOE =1)</sup>. Consider bone density scan 2 years after ADT or earlier for patients at increased risk of osteoporosis.<sup>23 (LOE =0)</sup> Bisphosphonates<sup>25 (LOE = III)</sup> (i.e. Fosamax, Boniva, Zometa) may be indicated in the setting of prolonged ADT. Men undergoing ADT are also at risk for gynecomastia and nipple tenderness. Refer to specialists for consideration of pre-treatment radiation or Tamoxifen, surgical reduction, or to manage the metabolic aspects of ADT (endocrinology).</p>
		<p>†Cancer survivors may be particularly prone to relationship issues and fear of the unknown. Depression can occur. Consider appropriate medications to treat underlying depression/anxiety after appropriate evaluation. Healthy coping strategies should be encouraged. Support groups and counseling resources are also available. Local sexual therapy providers can be found at <a href="http://www.aasect.org">www.aasect.org</a>. The <a href="http://www.nationalcancerinstitute.gov">National Cancer Institute website</a> offers good resources on sexuality and cancer. <a href="https://www.cancer.gov/about-cancer/treatment/side-effects/sexuality-fertility-men">https://www.cancer.gov/about-cancer/treatment/side-effects/sexuality-fertility-men</a> For more information go to <a href="http://www.prostatecancerdecision.org">www.prostatecancerdecision.org</a>.</p>