Erectile Dysfunction: AUA Guideline

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Purpose: The purpose of this guideline is to provide a clinical strategy for the diagnosis and treatment of erectile dysfunction.

Materials and Methods: A systematic review of the literature using the Pubmed, Embase, and Cochrane databases (search dates 1/1/1965 to 7/29/17) was conducted to identify peer-reviewed publications relevant to the diagnosis and treatment of erectile dysfunction. Evidence-based statements were based on body of evidence strength Grade A, B, or C and were designated as *Strong*, *Moderate*, and *Conditional Recommendations* with additional statements presented in the form of *Clinical Principles* or *Expert Opinions*.

Results: The American Urological Association has developed an evidence-based guideline on the management of erectile dysfunction. This document is designed to be used in conjunction with the associated treatment algorithm.

Conclusions: Using the shared decision-making process as a cornerstone for care, all patients should be informed of all treatment modalities that are not contraindicated, regardless of invasiveness or irreversibility, as potential first-line treatments. For each treatment, the clinician should ensure that the man and his partner have a full understanding of the benefits and risk/burdens associated with that choice.

Key Words: physiological sexual dysfunction, men's health, cardiovascular diseases, clinical decision/making, psychological sexual dysfunction

Abbreviations and Acronyms

AEs = adverse events

AUA = American Urological Association

ED = erectile dysfunction

EF = erectile function

ICI = intracavernous injection

IU = intraurethral

PDE5i = phosphodiesterase type 5 inhibitors

TD = testosterone deficiency

VED = vacuum erection device

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BACKGROUND

The sexual response cycle is conceptualized as a sequential series of psychophysiological states that usually occur in an orderly progression. These phases were characterized by Masters and Johnson as desire, arousal, orgasm, and resolution. Erectile dysfunction (ED) can be conceptualized as an impairment in the arousal phase of sexual response and is defined as the consistent or recurrent inability to attain and/or maintain penile erection sufficient for sexual satisfaction, including satisfactory sexual performance.[1,2]

The Panel believes that shared decision-making is the cornerstone of the treatment and management of ED, a model that relies on the concepts of autonomy and respect for persons in the clinical encounter. It is also a process in which the patient and the clinician together determine the best course of therapy based on a discussion of the risks, benefits and desired outcome. Using this approach, all men should be informed of all treatment options that are not medically contraindicated to determine the appropriate treatment. Although many men may choose to begin with the least invasive option,

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the Panel notes that it is valid for men to begin with any type of treatment, regardless of invasiveness or reversibility. Men also may choose to forego treatment. In each scenario, the clinician's role is to ensure that the man and his partner have a full understanding of the benefits and risks/burdens of the various management strategies (see supplementary figure, http://jurology.com/).

GUIDELINE STATEMENTS

For more information on the American Urological Association (AUA) nomenclature system that was used to arrive at statement type and body of evidence strength see table 1 in the supplementary unbridged guideline (http://jurology.com/).

1. **Men presenting with symptoms of ED should undergo a thorough medical, sexual and psychosocial history, a physical examination, and selective laboratory testing. (Clinical Principle)**

2. **For the man with ED, validated questionnaires are recommended to assess the severity of ED, to measure treatment effectiveness, and to guide future management. (Expert Opinion)**

3. **Men should be counseled that ED is a risk marker for underlying cardiovascular disease (CVD) and other health conditions that may warrant evaluation and treatment. (Clinical Principle)**

4. **In men with ED, morning serum total testosterone levels should be measured. (Moderate Recommendation; Evidence Level: Grade C)**

5. **For some men with ED, specialized testing and evaluation may be necessary to guide treatment. (Expert Opinion)**

6. **For men being treated for ED, referral to a mental health professional should be considered to promote treatment adherence, reduce performance anxiety, and integrate treatments into a sexual relationship. (Moderate Recommendation; Evidence Level: Grade C)**

When the man's presenting concern is ED, a comprehensive evaluation and targeted physical exam should be performed. Given that many men are uncomfortable broaching sexual concerns with a physician, it is critical that the physician initiate the inquiry.[3] Validated questionnaires may provide an opportunity to initiate a conversation about ED; examples include the Erection Hardness Score[4] and the Sexual Health Inventory for Men.[5] General medical history factors to consider when a man presents with ED are age, comorbid medical and psychological conditions, prior surgeries, medications, family history of vascular disease, and substance use. Key questions regarding ED include identifying the onset of symptoms, symptom severity, degree of bother, specification of whether the problem involves attaining and/or maintaining an erection, situational factors (e.g., occurring only in specific contexts, only when with a partner, only with specific partners), the presence of nocturnal and/or morning erections, the presence of masturbatory erections, and prior use of erectogenic therapy.[6] The presence of nocturnal and/or morning erections suggests (but does not confirm) a psychogenic component to ED symptoms that would benefit from further investigation.

Vital signs including pulse and resting blood pressure should be assessed. Genital examination should include assessment of penile skin lesions and placement/configuration of the urethral meatus. Examination of the penis for occult deformities or plaque lesions should occur with the penis held stretched and palpated from the pubic bone to the coronal sulcus.[7] The presence/absence of a palpable plaque should not be taken as definitive evidence for clinically relevant penile deformity such as Peyronie's Disease. If Peyronie's Disease is suspected, then additional diagnostic procedures should be undertaken. Digital rectal examination is not required for evaluation of ED; however, benign prostate hyperplasia is a common comorbid condition in men with ED and may merit evaluation and treatment.

With the possible exception of glucose/hemoglobin A1c and serum lipids, no routine serum study is likely to alter ED management. Serum total testosterone should be measured in all men with ED to determine if testosterone deficiency (TD), defined as total testosterone <300 ng/dL with the presence of symptoms and signs, is present. For complete information on TD, please see the AUA guideline on the evaluation and management of testosterone deficiency.[8]

Psychological factors (e.g., depression, anxiety, relationship conflict) and psychosexual issues may be primary or secondary contributors to ED.[9,10] Thoughtful discussion of these issues with men and their partners is a key component of patient education and can promote acceptance of incorporating a mental health/sexuality expert into the treatment plan. Psychotherapy and psychosexual counseling focus on helping patients and their partners improve communication about sexual concerns, reducing anxiety related to entering and during a sexual situation, and introducing strategies for integrating ED treatments into their sexual relationship. For men with predominantly psychogenic ED, providers should offer a referral to a psychotherapist as either an alternative or adjunct to medical treatment to ED.

Risk markers are attributes that predict increased probability of a disease state but are not part of the causal pathway; ED is a risk marker for systemic cardiovascular disease. The Princeton Consensus Conference, an inter-specialty meeting centered on preserving cardiac function and optimizing sexual health, has identified ED as a substantial independent risk marker for cardiovascular disease. Findings from the Prostate Cancer Prevention Trial indicated that the presence of ED was as strong a predictor of future cardiac events as cigarette smoking or a family history of myocardial infarction.[11] The diagnosis of ED provides a pivotal opportunity to discuss cardiovascular risk. The clinician should communicate this increased risk to the man with ED, to his partner, and to other relevant clinicians (i.e. the primary care provider) so that appropriate referrals and interventions can be discussed and implemented.

For some men with ED, generally those who present with complex histories, specialized testing and evaluation may be necessary. These tests include nocturnal penile tumescence and rigidity testing; intracavernosal injection (ICI); penile duplex ultrasound (which may be combined with ICI to produce a more detailed and quantitative assessment of penile vascular response);[12] cavernosometry; and selective internal pudendal angiography.

7. **Clinicians should counsel men with ED who have comorbidities known to negatively affect erectile function that lifestyle modifications, including changes in diet and increased physical activity, improve overall health and may improve erectile function. (Moderate Recommendation; Evidence Level: Grade C)**

The presence of ED indicates the likely presence of other comorbid conditions and risk factors, particularly cardiovascular risk factors and obesity.[13] Diverse literature that focused on lifestyle changes, primarily healthier diets and increased exercise, indicate that these interventions may have small positive effects on erectile function (EF) and broader, positive effects on overall health. The diagnosis of ED, and the associated interference with sexual life, may motivate re-evaluation of lifestyle choices and create the motivation for behavioral changes that ultimately may reduce future vascular risks and improve erectile function. The man's presentation for evaluation of ED therefore creates an opportunity for the clinician to emphasize to him and his partner the importance of a healthy lifestyle to general health and quality of life, but also to support optimal erectile function and increase the probability that ED treatments will be effective.

8. **Men with ED should be informed regarding the treatment option of an FDA-approved oral phosphodiesterase type 5 inhibitor (PDE5i), including discussion of benefits and risks/burdens, unless contraindicated. (Strong Recommendation; Evidence Level: Grade B)**

9. **When men are prescribed an oral PDE5i for the treatment of ED, instructions should be provided to maximize benefit/efficacy. (Strong Recommendation; Evidence Level: Grade C)**

10. **For men who are prescribed PDE5i, the dose should be titrated to provide optimal efficacy. (Strong Recommendation; Evidence Level: Grade B)**

The FDA-approved oral phosphodiesterase type 5 inhibitors (PDE5i) available for management of ED in the U.S. include sildenafil, tadalafil, vardenafil, and avanafil. Several other PDE5i have been approved for use in other countries. PDE5i medications have been extensively studied, with nearly a quarter of a million men evaluated from the general ED population and approximately 25,000 men evaluated from various special populations including those with specific underlying conditions (e.g., diabetes, benign prostate hyperplasia/lower urinary tract symptoms, post radical prostatectomy). Data from individual studies and trials, including analyses that pooled data across multiple trials[14-17] and reports of published systematic reviews[18] suggest that sildenafil, tadalafil, and vardenafil, and avanafil have similar efficacy in the general ED population, dose-response effects across PDE5i medications are small and non-linear, and on demand dosing versus daily dosing for tadalafil appears to produce the same level of efficacy. Fewer studies focused on special populations, but in general findings are similar to those reported in the general ED population.[19-26] The data suggest, however, that men with diabetes and men who are post-prostatectomy have more severe ED at baseline and respond less robustly to PDE5i.

The most frequently reported adverse events (AEs) in men using PDE5i are dyspepsia, headache, flushing, back pain, nasal congestion, myalgia, visual disturbance, and dizziness (table 2 in supplementary unbridged guideline, http://jurology.com/). Average rates are similar across medications with the exception of dyspepsia (lowest rates reported with avanafil), flushing (lowest rates reported with tadalafil), and myalgia (lowest rates reported with vardenafil and avanafil). Most AEs followed a dose-response pattern such that men who were randomized to active treatment reported statistically significantly higher rates of AEs than did men who were randomized to placebo; the percentage of men

reporting a particular AE increased as dose increased.

The use of nitrate-containing medications in combination with a PDE5i can cause a precipitous drop in blood pressure. As such, men taking nitrates regularly should not use PDE5i medications.

In men with mild to moderate hepatic or renal impairment or men with spinal cord injury, PDE5i should be used with caution at least initially at lower doses given the potential for delayed metabolism. In men with severe renal or liver disease, use of PDE5i is generally not recommended.

Given that incorrect use of PDE5i (e.g., lack of sexual stimulation, medication taken with a large meal) accounts for a large percentage of treatment failures, men who are prescribed a PDE5i should be carefully instructed in the appropriate use of the medication. In particular, it should be explained that sexual stimulation is necessary and that more than one trial with the medication may be required to establish efficacy.

When prescribing a PDE5i, the clinician must balance the goals of the man and his partner for successful sexual activity, the need to prescribe an effective PDE5i dose, and the need to minimize AEs. The clinician should work with the man and his partner to find the dose that meets treatment expectations without resulting in unacceptable levels of AEs. This process may require that initial doses be titrated up or down until the optimal dose is identified.

11. **Men who desire preservation of erectile function after treatment for prostate cancer by radical prostatectomy (RP) or radiotherapy (RT) should be informed that early use of PDE5i post-treatment may not improve spontaneous, unassisted erectile function. (Moderate Recommendation; Evidence Level: Grade C)**

The development of cavernous nerve-sparing surgical procedures (i.e., the application of techniques that preserve the peri-prostatic penile nerve supply required for penile erection) has led to improved rates of erectile function recovery after radical pelvic surgery.[27] Even with nerve-sparing techniques many men will experience ED after pelvic operations.[28] Similarly, modifications in the delivery of radiation for pelvic malignancies have resulted in better erection preservation after treatment.[29] However, ED remains common after pelvic radiation, with approximately 36% of patients reporting new-onset ED at 2 years post-treatment.[30]

Strategies for penile rehabilitation aim to prevent or reduce the extent of long-term erectile impairment and/or latency of erectile function recovery. The objective of these strategies is to counteract pathophysiologic mechanisms of erectile dysfunction induced by prostate cancer treatments. PDE5i have been investigated most extensively for the purpose of penile rehabilitation because of their non-invasiveness and ease of administration. Trials have not demonstrated that early PDE5i use (i.e., within 45 days of prostate cancer therapy) improves unassisted EF, although most studies reported that PDE5i are effective in assisting erections on-demand during the course of the trial.

Psychosocial support is also an integral component of the penile rehabilitation strategy. Given the impact of ED after prostate cancer treatment, particularly its suddenness and severity for many men undergoing radical prostatectomy, it is not surprising that men in this setting commonly experience depression, anxiety and relationship stress.[31] Clinicians should educate men regarding the sexual effects of prostate cancer treatments and set realistic expectations regarding functional recovery, including the possibility that recovery may be more challenging for men who have multiple ED risk factors.

12. **Men with ED and testosterone deficiency (TD) who are considering ED treatment with a PDE5i should be informed that PDE5i may be more effective if combined with testosterone therapy. (Moderate Recommendation; Evidence Level: Grade C)**

If a man with ED is also diagnosed with TD, then he should be counseled that testosterone therapy in combination with a PDE5i is more likely to be effective than the PDE5i alone. Testosterone therapy is not an effective monotherapy for ED;[32] if the man's goal is amelioration of ED symptoms, then he should be counseled regarding the need for ED therapies in addition to testosterone therapy. However, testosterone therapy may provide some global health benefits (e.g., improved bone density). For detailed information on possible health benefits of testosterone therapy, AEs associated with testosterone therapy, and recommended monitoring protocols for men prescribed testosterone, refer to the AUA guideline on the evaluation and management of testosterone deficiency.[8]

13. **Men with ED should be informed regarding the treatment option of a vacuum erection device (VED), including discussion of benefits and risks/burdens. (Moderate Recommendation; Evidence Level: Grade C)**

Vacuum erection devices (VED) are associated with high rates of patient and partner satisfaction (mean 77% for both patients and partners) and are an effective and low-cost treatment option for select men with ED. They are effective in the general ED population as well as in men with diabetes, spinal cord injury, post-prostatectomy, and other conditions.[33,34] Only VEDs containing a vacuum limiter

should be used. VED may be purchased over-the-counter or procured via prescription. Clinicians should counsel men with ED prior to beginning VED treatment about the potential occurrence of AEs. Most AEs are minor and resolved without intervention, and include: transient penile petechiae or bruising; discomfort or pain; difficulty with ejaculation; and difficulty with the device. Men who are receiving anti-coagulant therapy and/or who have bleeding disorders or have a history of priapism should use VEDs with caution.

14. **Men with ED should be informed regarding the treatment option of intraurethral (IU) alprostadil, including discussion of benefits and risks/burdens. (Conditional Recommendation; Evidence Level: Grade C)**

15. **For men with ED who are considering the use of IU alprostadil, an in-office test should be performed. (Clinical Principle)**

Intraurethral (IU) medication involves the insertion of a delivery catheter into the meatus and depositing an alprostadil (prostaglandin E1) pellet in the urethra to induce an erection sufficient for intercourse. IU alprostadil is a treatment option for men for whom PDE5i are contraindicated, for men or partners who prefer to avoid oral medication, and/or for men or partners who prefer not to use the needles required for ICI medications.[35,36] The largest study to assess the efficacy of IU alprostadil reported that of the 461 men assigned to the alprostadil condition, 299 (64.9%) achieved at least one episode of intercourse at home,[37] while other studies reported successful intercourse rates from 29.5% to 78.1%.

IU alprostadil should not be prescribed until a man has undergone instruction in the technique, an initial dose-titration in the office, and detailed counseling regarding possible AEs.

16. **Men with ED should be informed regarding the treatment option of intracavernosal injections (ICI), including discussion of benefits and risks/burdens. (Moderate Recommendation, Evidence Level: Grade C)**

17. **For men with ED who are considering ICI therapy, an in-office injection test should be performed. (Clinical Principle)**

ICI medications are administered by injecting alprostadil, papaverine, phentolamine, and/or atropine into the corpus cavernosum of the penis to produce an erection. Only alprostadil is FDA-approved in the U.S. for ICI injection, and it is the only medication typically used as a single agent. The three other medications with established efficacy for ED are typically used in combination with one another (e.g., papaverine + phentolamine, alprostadil + papaverine + phentolamine; alprostadil + papaverine + phentolamine + atropine).

Men who have contraindications to the use of PDE5i, prefer not to take an oral medication, or find that PDE5i are inadequate or ineffective, may choose the ICI approach to treating ED. ICI medications are effective in diverse groups of men, including men from the general ED population as well as among men with other conditions such as diabetes, cardiovascular risk factors, men who are post-prostatectomy, and men with spinal cord injuries.[38-42]

The most commonly used outcome measure in ICI studies is the percentage of men who reported achieving an erection sufficient for successful intercourse. These percentages ranged from 53.7% to 100% without marked differences across medications or medication combinations. The second most commonly used outcome measure was the percent of men who reported being satisfied with the treatment. These percentages ranged from 46.3% to 98.8% with the lowest satisfaction rates associated with papaverine use (mean 53.4%).

Men should be thoroughly counseled regarding the potential differential risk profiles of the various ICI substances. The most serious AE associated with ICI medications is priapism with lowest rates of priapism (mean 1.8%) reported in studies using alprostadil. The Panel notes that identifying the appropriate dose of medication and instructing the man in dose titration is critical to minimize the risk of priapism. Pain is also a common consequence of ICI injections; the literature suggests that pain rates are highest when papaverine or alprostadil are used as single agents, and when papaverine is used in combination with phentolamine. Penile fibrosis or plaque and penile deformities have been reported with use of ICI with considerable range across medications (4.5% - 13%).

Men considering ICI therapy should first have an in-office injection test,[42] and should be informed that although injectable non-prostaglandin agents have been used to successfully manage ED for decades, none are formally FDA-approved for this indication.

18. **Men with ED should be informed regarding the treatment option of penile prosthesis implantation, including discussion of benefits and risks/burdens. (Strong Recommendation, Evidence Level: Grade C)**

19. **Men with ED who have decided on penile implantation surgery should be counseled regarding post-operative expectations. (Clinical Principle)**

20. **Penile prosthetic surgery should not be performed in the presence of systemic, cutaneous, or urinary tract infection. (Clinical Principle)**

Prosthesis implantation has been performed successfully in men from the general ED population

as well as in men from a variety of special populations.[43] Men and their partners should be thoroughly counseled regarding the benefits and potential risks of this treatment to ensure appropriate choice of device, realistic post-operative expectations, and potential for high satisfaction.[44]

Men and their partners should be counseled regarding AEs in the peri- and post-operative period, including penile edema or hematoma, corporeal injury, urethral injury, and acute urinary retention. These AEs are rarely serious and generally resolve with supportive care or minimal intervention. Infection is a serious AE that typically occurs within the first three months after surgery and usually requires removal of the prosthesis. Although no randomized studies have compared outcomes between prosthesis models with and without infection-inhibiting coatings, observational studies indicate that coated models have greatly reduced infection rates with most series reporting rates of 1-2% when these models are implanted.[45,46]

Given the invasive and essentially irreversible nature of penile prosthesis implantation surgery, counseling regarding short- and long-term post-operative expectations is essential. The Panel notes that penile prosthesis surgery should not be undertaken if the man has evidence of systemic or cutaneous infections or if he has a urinary tract infection.

21. **For young men with ED and focal pelvic/penile arterial occlusion and without documented generalized vascular disease or veno-occlusive dysfunction, penile arterial reconstruction may be considered. (Conditional Recommendation, Evidence Level: Grade C)**

Penile arterial reconstruction surgery may be considered for the man with ED who is young and who does not have veno-occlusive dysfunction or any evidence of generalized vascular disease or other comorbidities that could compromise vascular integrity.

Overall, data indicate that predicting whether arterial reconstructive surgery will result in long-term success for a given man is extremely difficult, even in men without comorbidities and with good vascular health. In addition, proper diagnosis requires a thorough investigation. A recent study reported that nearly 50% of men initially identified as good candidates for arterial reconstruction were not properly diagnosed.[47]

22. **For men with ED, penile venous surgery is not recommended. (Moderate Recommendation, Evidence Level: Grade C)**

Penile venous surgery is not recommended because of the lack of compelling evidence that it constitutes an effective ED management strategy in most men. Randomized trials of men who underwent various versions of penile venous ligation surgery indicate that penile venous ligation surgery is unlikely to result in long-term successful management of ED for the overwhelming majority of men and delays treatment with other more reliable options such as penile prosthesis surgery.[48]

23. **For men with ED, low-intensity extracorporeal shock wave therapy should be considered investigational. (Conditional Recommendation; Evidence Level: Grade C)**

24. **For men with ED, intracavernosal stem cell therapy should be considered investigational. (Conditional Recommendation; Evidence Level: Grade C)**

25. **For men with ED, platelet-rich plasma therapy should be considered experimental. (Expert Opinion)**

Findings from randomized sham-controlled trials that have evaluated low-intensity extracorporeal shock wave therapy and ICI stem cell therapy do not clearly indicate that benefits reliably outweigh risks/burdens for men with ED, and these treatments should only be considered investigational.[49,50] Platelet-rich plasma therapy should not be offered to men with ED unless it is administered in the context of an institutional review board approved experimental clinical research protocol. At this time, no full-text peer-reviewed publications are available to constitute an evidence base.

FUTURE DIRECTIONS

Advancements in ED management can be expected to continue into the future in parallel with ongoing progress in the field of sexual medicine more broadly. Developments in health care delivery, diagnostics, and therapeutics will be the underpinnings of improved, evidence-based clinical practice in this field. Scientific discovery in the vascular biology and neurophysiology of penile erection will continue to take center stage with particular focus on molecular and cellular signaling pathways and growth factor mechanisms that may be exploited to produce the next generation of pharmacotherapeutics as well as gene, stem cell, and regenerative therapies. Technologic advancements can also be expected to impact surgical procedures ranging from penile reconstructive to prosthetic to tissue replacement surgeries (e.g., penile transplantation).

DISCLAIMER

This document was written by the Erectile Dysfunction Guideline Panel of the American Urological Association Education and Research, Inc. The Practice Guidelines Committee (PGC) of the

AUA selected the committee chair. Panel members were selected by the chair. Membership of the Panel included specialists in urology, family medicine, and psychology with specific expertise on this disorder. The mission of the Panel was to develop recommendations that are analysis-based or consensus-based, depending on Panel processes and available data, for optimal clinical practices in the treatment of muscle-invasive bladder cancer.

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While these guidelines do not necessarily establish the standard of care, AUA seeks to recommend and to encourage compliance by practitioners with current best practices related to the condition being treated. As medical knowledge expands and technology advances, the guidelines will change. Today these evidence-based guidelines statements represent not absolute mandates but provisional proposals for treatment under the specific conditions described in each document. For all these reasons, the guidelines do not pre-empt physician judgment in individual cases.

Treating physicians must take into account variations in resources, and patient tolerances, needs, and preferences. Conformance with any clinical guideline does not guarantee a successful outcome. The guideline text may include information or recommendations about certain drug uses ('off label') that are not approved by the Food and Drug Administration (FDA), or about medications or substances not subject to the FDA approval process. AUA urges strict compliance with all government regulations and protocols for prescription and use of these substances. The physician is encouraged to carefully follow all available prescribing information about indications, contraindications, precautions and warnings. These guidelines and best practice statements are not intended to provide legal advice about use and misuse of these substances.

Although guidelines are intended to encourage best practices and potentially encompass available technologies with sufficient data as of close of the literature review, they are necessarily time-limited. Guidelines cannot include evaluation of all data on emerging technologies or management, including those that are FDA-approved, which may immediately come to represent accepted clinical practices.

For this reason, the AUA does not regard technologies or management which are too new to be addressed by this guideline as necessarily experimental or investigational.

CONFLICT OF INTEREST (COI) DISCLOSURES

Consultant/Advisor: Arthur Burnett: Auxilium, American Medical Systems, Coloplast, Pfizer, Astellas, Lilly, Genomic Health; Mohit Khera: Abbvie, Boston Scientific, ATYU Pharmaceuticals, Coloplast, Endo Pharmaceuticals, VIVUS; Kevin McVary: NeoTract, NxThera, Boston Scientific; Health Publishing: Arthur Burnett: *Practical Reviews in Urology*, *European Urology*, *Urology Times*, *Journal of Sexual Medicine*, *Andrology*, *International Urology and Nephrology*; Mohit Khera: *Journal of Sexual Medicine*; Hossein Sadeghi-Nejad: *Journal of Sexual Medicine*; Alan Shindel: Endotext.com; Investment Interest: Alan Shindel: Genomic Health; Leadership Position: Arthur Burnett: Reflexonic, The Center for Intimacy After Cancer Therapy; Mohit Khera: Sexual Medicine Society of North America; Martin Miner: American Society of Men's Health; Christian Nelson: Association of Peyronie's Disease Advocates; Hossein Sadeghi-Nejad: Sexual Medicine Society of North America; Allen Seftel: *The Journal of Urology*®, American Geriatrics Society, Mid-Atlantic Section of AUA, International Journal of Impotence Research; Ajay Nehra: International Society of Men's Health; Meeting Participant/Lecturer: Lawrence Hakim: ENDO Urology, Slate/Auxilium; Owner, Product Development: Allen Seftel: Patient Pocket, LLC; Scientific Study/Trial: Arthur Burnett: Medispec, Endo Pharmaceuticals, Acorda Therapeutics, National Institutes of Health; Kevin McVary: Astellas, NIDDK, Sophris; Martin Miner: Ichelxix; Christian Nelson: National Institutes of Health; Allen Seftel: Ixchelsis, Progenics.

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