

# **Madigan Army Medical Center Clinical Practice Guidelines**

## **Management of Erectile Dysfunction**

Department of Surgery/Urology  
Madigan Army Medical Center  
Maintained by Quality Services Division  
Clinical Practice and Referral Guidelines Administrator

Last Review for this Guideline: **June 2010**  
Clinical Guidelines require review every three years

**Core Document**

**TITLE:** MADIGAN ARMY MEDICAL CENTER (MAMC) CLINICAL GUIDELINE FOR ERECTILE DYSFUNCTION MANAGEMENT

**INDICATIONS FOR THE CLINICAL GUIDELINE:** Erectile dysfunction (ED) is estimated to affect up to 30 million men in the United States.

1. With increased use of medication to treat ED, a growing number of new cases of ED are being seen by primary care providers. FDA approval of the oral phosphodiesterase inhibitors (PDE) ignited new interest in therapy for erectile dysfunction. Since the introduction of PDE inhibitors to treat ED, primary evaluation and management has migrated to the realm of the primary care provider. The following guideline should result in a consistent pattern of care for erectile dysfunction and improve the overall quality of care. A goal-directed approach to treatment should emphasize noninvasive diagnostic techniques and patient education about the benefits, adverse events, and success rates for commonly used treatments for ED. Invasive diagnostic techniques and extensive evaluations should only be performed if they can change the management of the condition.
2. This Clinical Guideline is to complement the [Erectile Dysfunction Referral Guideline](#) that is currently available.

**METRICS:** THE KEY ELEMENTS OF THE CLINICAL GUIDELINE THAT WILL BE USED TO MONITOR PROVIDER ADHERENCE TO THE CLINICAL GUIDELINE.

1. Erectile dysfunction is defined as the inability to achieve or maintain an erection sufficient for penetration. Referral for ED must come from a Primary Care Manager (PCM) who should include documentation of the following; medical and sexual history, to include characteristics and duration of symptoms, a physical examination and the response to initial treatment with the currently available oral PDE 5 inhibitor at MAMC at maximum dose.
2. Documented current list of medications to include a history of organic nitrates. [Referral Guidelines for Erectile Dysfunction](#)
3. Documented counseling of the patient regarding benefits, adverse effects, and precautions of selected therapy for ED.

DATE(S): Published: August 1998 Revised: February 2000, March 2004, May 2007, July 2010

**AUTHORS:** Please contact the administrator at 253-968-3013 for information regarding the authors of this clinical guideline.

**AREAS OF DISAGREEMENT:** There are no major areas of disagreement between authors. The Impotence Referral Guideline was reviewed and was changed to agree with the proposed practice recommendations.

**PUBLISHED GUIDELINES OF CARE AND OTHER REFERENCES UPON WHICH THE CLINICAL GUIDELINE IS BASED:**

1. NIH Consensus Development Panel on Impotence. Impotence. JAMA 270:83 – 90, 1993.
2. The management of erectile dysfunction: An AUA update. Journal of Urology 174:230-239, 2005.
3. Diagnostic steps in the evaluation of patients with erectile dysfunction. Journal of Urology 168:615-620,2002.

4. Summary Statement of the American College of Cardiology and the American Heart Association on the Use of Sildenafil (Viagra TM) in Patients at Clinical Risk From Cardiovascular Effects, circulated August 1998.
5. AUA Guidelines: Management of erectile dysfunction, revised 2009, accessed on AUA.net.org

**CLINICAL PRACTICE RECOMMENDATIONS: ALGORITHM FOR THE GOAL-DIRECTED EVALUATION AND TREATMENT OF ERECTILE DYSFUNCTION ALGORITHM.**

**COST COMPARISON (BASED ON COSTS TO THE FEDERAL GOVERNMENT):**

1. Vardenafil (5 mg, 10 mg, 20 mg): \$5.32 per tablet; restricted to 6 tablets/month
2. CAVERJECT TM (Intracavernosal alprostadil) (20 mcg): \$13.26 per injection kit; restricted to 4 kits/month
3. MUSE TM \* (Intraurethral alprostadil suppository)
  - a. (250 mcg): \$11.75 per suppository
  - b. (500 mcg): \$12.40 per suppository
  - c. (1000 mcg): \$13.56 per suppository

\*Requires special drug request

**KEY POINTS:** There are no key points for this clinical guideline.

**IMPACT STATEMENT TO INSTITUTION:** This clinical guideline will impact all providers who perform the initial evaluation of the patient with ED. This includes Primary Care, Family Practice, Internal Medicine and operational medicine providers.

**LINKS WITHIN THE MAMC INTRANET:** This guideline will be linked to the Impotence Referral Guideline.

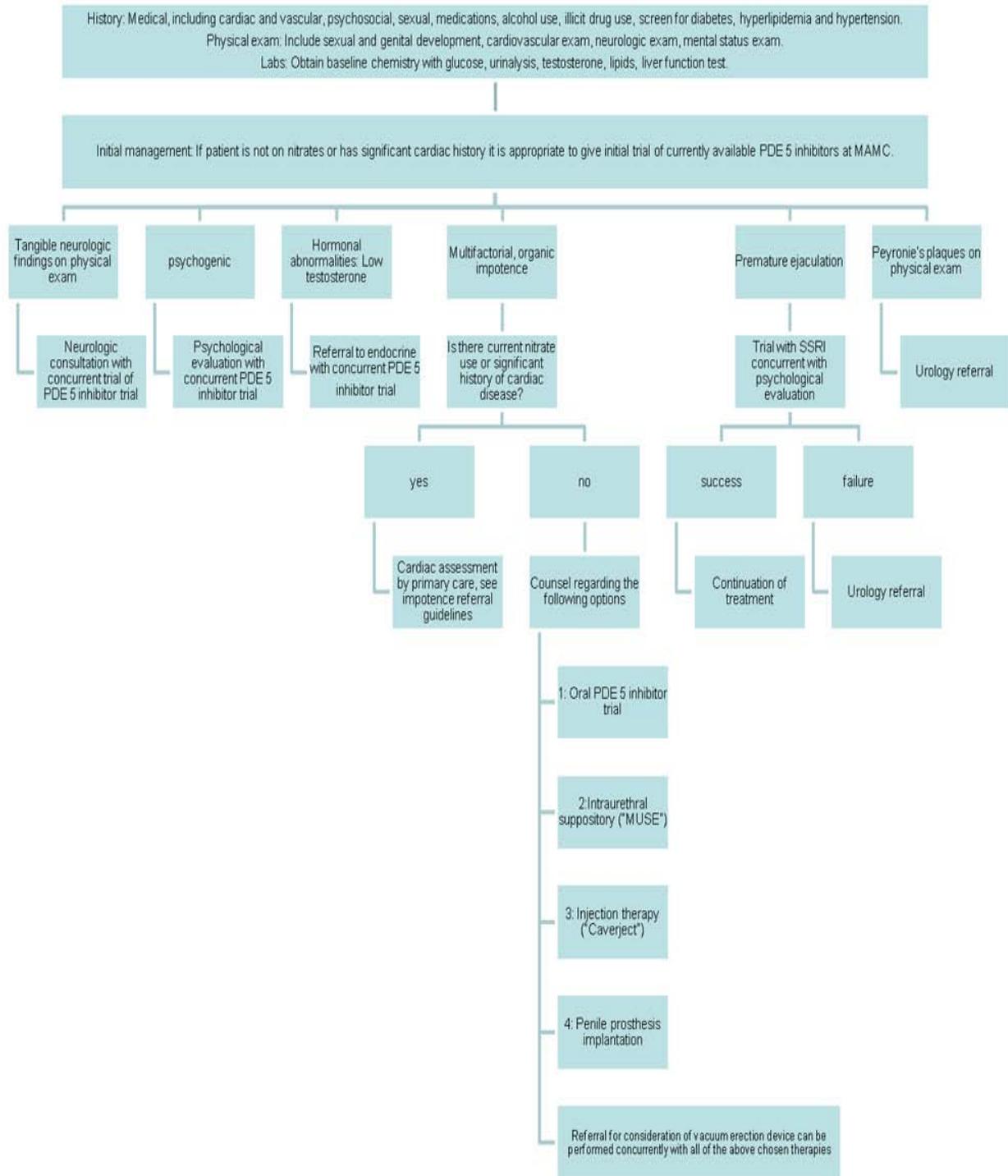
**METHODS OF PROVIDER EDUCATION:**

1. Department Chiefs will notify their departments of the guideline. Automated reminders may be sent via CHCS when providers order pharmaceuticals for the treatment of ED.
2. The clinical practice recommendations will be readily available in the Urology clinic and the Impotence Referral Guideline will be readily available in all primary care clinics.

**METHODS OF PATIENT EDUCATION:** There are no patient education materials for this clinical guideline.

**REVISION FREQUENCY:** The Department of Urology will do annual review of the Clinical Guideline with oversight from the Pharmacy and Therapeutics committee. Revisions may be needed sooner than annually if changes occur in the pharmaceutical costs to MAMC or in the availability of other oral agents for erectile dysfunction.

Madigan Clinical Practice Guidelines - Management of Erectile Dysfunction (June 2010)



## **Premature Ejaculation**

<http://www.urologyhealth.org/>

Premature Ejaculation (PE)

Premature ejaculation (PE), is also known as rapid ejaculation, premature climax, or early ejaculation. In the United States, PE affects about one in five men ages 18 to 59. Although the problem is often assumed to be psychological, biology also may play a role.

### **How does ejaculation occur?**

Ejaculation, controlled by the central nervous system, happens when sexual stimulation and friction provide impulses that are delivered to the spinal cord and into the brain.

Ejaculation has two phases:

#### **Phase I: Emission**

The vas deferens (the tubes that store and transport sperm from the testes) contract to squeeze the sperm toward the base of the penis through the prostate gland. The seminal vesicles release secretions that combine with the sperm to make semen. The ejaculation is unstoppable at this stage.

#### **Phase II: Ejaculation**

The muscles at the base of the penis contract forcing semen out of the penis (ejaculation and orgasm) while the bladder neck contracts. Orgasm can occur without the delivery of semen (ejaculation) from the penis. Normally, erections are lost following ejaculation.

### **What is premature ejaculation?**

Premature ejaculation (PE) is characterized by a lack of voluntary control over ejaculation. Many men occasionally ejaculate sooner than they or their partner would like during sexual activities. PE is a frustrating problem that can reduce the enjoyment of sex, harm relationships and affect quality of life. Occasional instances of PE might not be cause for concern. However, when the problem occurs frequently and causes distress to the man or his partner, treatment may be of benefit.

### **What causes premature ejaculation?**

Although the exact cause of premature ejaculation (PE) is not known, new studies suggest that serotonin, a natural substance produced by nerves, is important. A breakdown of the actions of serotonin in the brain may be a cause. Studies have found that high amounts of serotonin in the brain slow the time to ejaculation while low amounts of serotonin can produce a condition like PE.

Psychological factors also commonly contribute to PE. Temporary depression, stress, unrealistic expectations about performance, a history of sexual repression, or an overall lack of confidence can cause PE. Interpersonal dynamics may contribute to sexual function. PE can be caused by a lack of communication between partners, hurt feelings, or unresolved conflicts that interfere with the ability to achieve emotional intimacy.

### **Can premature ejaculation develop later in life?**

Premature ejaculation (PE) can occur at any age. Surprisingly, aging appears not to be a cause of PE. However, the aging process typically causes changes in erectile function and ejaculation. Erections may not be as firm or as large. Erections may be maintained for a shorter period before ejaculating. The feeling that an ejaculation is about to happen may be shorter. These factors can result in an older man having an ejaculation earlier than when he was younger.

### **Can both premature ejaculation and erectile dysfunction affect a man at the same time?**

Sometimes premature ejaculation (PE) may be a problem in men who have erectile dysfunction (ED)—the inability to achieve and/or maintain an erection sufficient for satisfactory sexual performance. Some men do not understand that the loss of erection normally occurs after ejaculation and may wrongly complain to their doctor that they have ED when the actual problem is PE. It is recommended that the ED be treated first if you experience both ED and PE, since the PE may resolve on its own once the ED has been adequately treated.

### **When should a doctor be seen?**

When premature ejaculation (PE) happens so frequently that it interferes with your sexual pleasure, it becomes a medical problem requiring the care of a doctor. To understand the problem, the doctor will need to ask questions about your sexual history such as the following:

- How often does the PE occur?
- How long have you had this problem?
- Is the problem specific to one partner? Or does it happen with every partner?
- Does PE occur with all or just some attempts at sexual relations?
- How much stimulation results in PE?
- What type of sexual activity (i.e., foreplay, masturbation, intercourse, use of visual clues, etc.) is engaged in and how often?
- How has PE affected sexual activity?
- What is the quality of your personal relationships?
- How does PE affect your quality of life?
- Are there any factors that make PE worse or better (i.e., drugs, alcohol, etc.)?

Usually, laboratory testing is not necessary unless the history and a physical examination reveal something more complicated.

### **How to talk to your partner about premature ejaculation?**

Premature ejaculation (PE) affects not only you but also your partner and your sexual relationship. In an episode of PE, the intimacy shared with a partner suddenly comes to a quick end. You might feel angry, ashamed, and frustrated, and turn away from your partner. At the same time, your partner may be upset with the rapid emotional change, or the outcome of the sexual encounter.

Communication is not only important to successful diagnosis and treatment, but can also help a partner understand the feelings of the individual. Sometimes couple counseling or sex therapy may be useful.

Together a couple might develop techniques (for example, the squeeze technique) that may prolong an erection. Most importantly, the couple should try to relax. Anxiety (especially performance anxiety) only makes this condition worse.

### **What treatments are available?**

There are several treatment choices for premature ejaculation: psychological therapy, behavioral therapy and medications. Be sure to discuss these treatments with your doctor and together decide which of the following options is best for you:

- *Psychological therapy* addresses feelings a man may have about sexuality and sexual relationships.
- *Behavioral therapy* makes use of exercises to help a man develop tolerance to stimulation and, as a result, delay ejaculation.
- *Medical therapy* includes medications that are commonly used to treat depression. In addition, topical anesthetic creams may be used.

### **Psychological therapies**

Psychological therapy can be used as the only treatment or can be used together with medical therapy or behavioral therapy. The focus of psychological therapy is to help you to identify and solve any difficulties in your relationships that may have added to the cause of premature ejaculation (PE). This therapy can also help couples to talk about problems with intimacy that occurred after PE began. Psychological therapy can also help a man learn to be less anxious about his sexual performance and have greater sexual confidence. Typically, a man will receive specific advice on how to enhance his and his partner's sexual satisfaction.

### **Behavioral therapies**

Behavioral therapy can play a key part in the usual treatment of premature ejaculation. Exercises are effective; however, they may not always provide a lasting solution to the problem. Also, they rely heavily on the cooperation of the partner, which in some cases, may be a problem.

With the *squeeze method*, an exercise developed by Masters and Johnson, the partner stimulates the man's penis until he is close to ejaculation. At the point when he is about to ejaculate, the partner squeezes the penis hard enough to make him partially lose his erection. The goal of this technique is to teach the man to become aware of the sensations leading up to orgasm, and then begin to control and delay his orgasm on his own.

With the *stop-start method*, the partner stimulates the man's penis until just before ejaculation. The partner should then stop all stimulation until the urge to ejaculate subsides. As the man regains control, he instructs the partner to begin stimulating his penis again. This procedure is repeated three times before allowing the man to ejaculate on the fourth time. The couple repeats this exercise three times a week, until the man has gained good control.

### **Medical therapies**

Although not approved by the U.S. Food and Drug Administration (FDA) for this purpose, drugs used for depression and anesthetic creams have been shown to delay ejaculation in men with premature ejaculation (PE).

**Medications** are a relatively new form of treatment for PE. Doctors first noticed that men and women who were taking drugs for the treatment of depression (antidepressants) also had delayed orgasms. Doctors then began to use these drugs "off-label" (this implies using a medication for a different illness than what it was originally manufactured for) to treat PE. These medications include antidepressants that affect serotonin such as fluoxetine, paroxetine, sertraline and clomipramine.

If one medication fails to work, a second one is usually recommended. If the second one fails, trying a third medication will not likely be beneficial. An alternative is to combine medication with behavioral therapy and/or creams.

For use in PE, the doses of antidepressants are usually lower than those recommended for the treatment of depression. Common side effects of antidepressants can include nausea, dry mouth, drowsiness and reduced desire for sexual activity.

These drugs can be taken either every day or only taken before sexual activity. Your doctor will decide how you should take the medication based on the frequency of intercourse. The best time for taking the antidepressant medications before sexual activity has not been established, but most doctors will recommend from two to six hours depending on the medication. Because PE can recur when the medication is not taken, you most likely will need to take it on a continuing basis.

**Local anesthetic creams** can be used to treat PE. These creams are applied to the head of the penis about 20 to 30 minutes before intercourse to lessen the sensitivity. Prior to sexual intercourse, a condom (if used) may be removed and the penis washed clean of any remaining cream. A loss of erection can occur if the anesthetic cream is left on the penis for a longer period of time than recommended. Also, the anesthetic cream should not be left on the exposed penis during vaginal intercourse since it may cause vaginal numbness.

See your urologist for evaluation and treatment for the biological aspects of premature ejaculation. For further information on the psychosocial causes or to find a therapist:

Society for Sex Therapy and Research  
409 12<sup>th</sup> Street, S.W.  
P.O. Box 96920  
Washington, D.C. 20090-6920  
202- 863-1644

American Association for Marriage and Family Therapy  
112 South Alfred Street  
Alexandria, VA 22314-3061  
Phone: 703-838-9808  
Fax: 703-838-9805

American Association of Sex Educators, Counselors, and Therapists  
P.O. Box 5488  
Richmond, VA 23220-0488

Download a copy of "The Management of Premature Ejaculation: A Patient's Guide".

*Reviewed December, 2006*

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## Glossary Terms

### **anesthetic:**

A substance that causes lack of feeling or awareness.

### **anesthetic creams:**

Creams that contain a small amount of a numbing chemical, most often benzocaine.

### **antidepressants:**

Medications used to treat depression and other related conditions.

### **anxiety:**

A feeling of apprehension, often characterized by feelings of stress.

### **bladder:**

The bladder is a thick muscular balloon-shaped pouch in which urine is stored before being discharged through the urethra.

### **bladder neck:**

Area of thickened muscle fiber where the bladder joins the urethra. Acting on signals from the brain, bladder neck muscles can either tighten to hold urine in the bladder or relax to allow urine out and into the urethra. These muscles also tighten during ejaculation to prevent backflow of semen into the bladder.

### **contract:**

To shrink or become smaller.

### **counseling:**

The providing of advice and guidance to a patient by a health professional.

### **depression:**

A disorder characterized by feelings of extreme sadness, guilt, helplessness and hopelessness, and thoughts of death.

**diagnosis:**

The process by which a doctor determines what disease or condition a patient has by studying the patient's symptoms and medical history, and analyzing any tests performed (e.g., blood tests, urine tests, brain scans, etc.).

**ED:**

Also known as erectile dysfunction or impotence. The inability to get or maintain an erection for satisfactory sexual intercourse.

**ejaculate:**

The fluid that is expelled from a man's penis during sexual climax (orgasm). To release semen from the penis during an orgasm.

**ejaculation:**

Release of semen from the penis during sexual climax (orgasm).

**erectile:**

Capable of filling with blood under pressure, swelling and becoming stiff.

**erectile dysfunction:**

Also known as ED or impotence. The inability to get or maintain an erection for satisfactory sexual intercourse. Also called impotence.

**erection:**

Enlargement and hardening of the penis caused by increased blood flow into the penis and decreased blood flow out of it as a result of sexual excitement.

**FDA:**

Food and Drug Administration.

**foreplay:**

Fondling of the sex partner to produce mutual sexual arousal and pleasure prior to intercourse.

**frequency:**

The need to urinate more often than is normal.

**gas:**

Material that results from: swallowed air, air produced from certain foods or that is created when bacteria in the colon break down waste material. Gas that is released from the rectum is called flatulence.

**gland:**

A mass of cells or an organ that removes substances from the bloodstream and excretes them or secretes them back into the blood with a specific physiological purpose.

**ions:**

Electrically charged atoms.

**liver:**

A large, vital organ that secretes bile, stores and filters blood, and takes part in many metabolic functions, for example, the conversion of sugars into glycogen. The liver is reddish-brown, multilobed, and in humans is located in the upper right part of the abdominal cavity.

**masturbation:**

Stimulation of genitals or other parts of the body causing sexual excitement, usually to orgasm, by some means other than sexual intercourse.

**orgasm:**

The climax of sexual excitement, consisting of intense muscle tightening around the genital area experienced as a pleasurable wave of tingling sensations through parts of the body.

**penis:**

The male organ used for urination and sex.

**premature ejaculation:**

Ejaculation that occurs sooner than a man wishes, usually before or soon after penetration.

**prostate:**

A walnut-shaped gland in men that surrounds the urethra at the neck of the bladder. The prostate supplies fluid that goes into semen.

**secretion:**

Process of producing a substance from the cells and fluids within a gland or organ and discharging it.

**semen:**

Also known as seminal fluid or ejaculate fluid. Thick, whitish fluid produced by glands of the male reproductive system, that carries the sperm (reproductive cells) through the penis during ejaculation.

**seminal vesicle:**

Two pouch-like glands behind the bladder. They produce a sugar-rich fluid called fructose that provides sperm with a source of energy that helps sperm move. The fluid of the seminal vesicles makes up most of the volume of a man's ejaculatory fluid, or ejaculate.

**serotonin:**

A small molecule (also known as neurotransmitter) that helps the brain cells communicate with each other.

**sperm:**

Also referred to as spermatozoa. Male germ cells (gametes or reproductive cells) that are produced by the testicles and that are capable of fertilizing the female partner's eggs. Cells resemble tadpoles if seen by the naked eye.

**stage:**

Classification of the progress of a disease.

**testes:**

Also known as testicles. Paired, egg-shaped glands contained in a pouch (scrotum) below the penis. They produce sperm and the male hormone testosterone.

**topical:**

Describes medication applied directly to the surface of the part of the body being treated.

**urge:**

Strong desire to urinate.

**urologist:**

A doctor who specializes in diseases of the male and female urinary systems and the male reproductive system. Click here to learn more about urologists. (*Download the free Acrobat reader.*)

**vagina:**

The tube in a woman's body that runs beside the urethra and connects the uterus (womb) to the outside of the body. Sometimes called the birth canal. Sexual intercourse, the outflow of blood during menstruation and the birth of a baby all take place through the vagina.

**vas:**

Also referred to as vas deferens. The cordlike structure that carries sperm from the testicle to the urethra.

