trc | pharmacist's letter™

JOURNAL CLUB

ISSN #1555-0095 (online)
Clinical Resource #360375

BRINGING CLINICIANS TOGETHER TO DISCUSS CURRENT DRUG THERAPY

July 2023

The following succinct analysis appeared in *Pharmacist's Letter*. Based on vol. 36. No. 3

TESTOSTERONE

Men will continue to ask you about testosterone to treat age-related "low T"...due to ongoing marketing.

New guidelines say to consider testosterone ONLY for sexual dysfunction in older men with low T...after weighing pros and cons.

That's because evidence suggests testosterone therapy may provide a SMALL improvement in libido or erectile function...but has little to no benefit for symptoms such as low energy or cognitive impairment.

And evidence is mixed on whether using testosterone increases lean body mass. Any effects don't seem to persist long-term.

Plus levels under 300 ng/dL don't automatically need treatment.

Continue to recommend PDE5 inhibitors (sildenafil, etc) first for erectile dysfunction...they're more effective than testosterone.

Explain testosterone therapy is linked to many problems...such as BPH, infertility, and high red blood cell counts. And labeling warns of possible increased risk of heart attack, stroke, and clots.

Recommend avoiding testosterone for age-related low T in men with prior prostate cancer or CV disease...especially with a recent CV event.

If men start testosterone, educate that efficacy seems similar among products...but NONE are approved for low T due to aging.

Expect some payers to require IM testosterone cypionate (*Depo-Testosterone*) first...it costs about $30/month and isn't riskier than other routes. It's usually given in the gluteus...often at home.

Don't be surprised if patients prefer a topical (*AndroGel*, etc)... even though these cost over $150/month. Caution to keep the treated area clothed or to wash it before skin-to-skin contact.

Point out that the buccal tabs (*Striant*) or nasal gel (*Natesto*) require multiple doses a day...and cost about $800/month.

And advise that the newer oral *Jatenzo* and auto-injector *Xyosted* are CONTRAINDICATED for age-related low T...due to lack of data and increased BP. Plus these cost at least $400/month.

Recommend monitoring testosterone, hematocrit, and PSA...and stopping testosterone if symptoms don't improve in 6 to 12 months.

Compare the options in our chart, *Testosterone Products*.

(For more on this topic, see Clinical Resource #360308 at PharmacistsLetter.com.)

Qaseem A, Horwitch CA, Vijan S, et al. Testosterone treatment in adult men with age-related low testosterone: a clinical guideline from the American College of Physicians. Ann Intern Med 2020 Jan 7. doi: 10.7326/M19-0882. [Epub ahead of print].

See LEADER NOTES for answers to discussion questions.

DISCUSSION QUESTIONS

OVERVIEW OF CURRENT THERAPY

1. **What are the new guidelines for testosterone therapy in men with low testosterone due to aging?**

ANALYSIS OF NEW STUDY

2. **What are the criteria for development or evaluation of practice guidelines?**

3. **Are the new guidelines for testosterone therapy evidence based? Is evidence linked to recommendations with a strength of recommendation grading system?**

4. **Are the guidelines unbiased and representative of a wide range of clinicians?**

5. **Are the guidelines based on outcomes important to patients?**

6. **Are the interventions proposed in the guidelines feasible in all practice settings?**

See LEADER NOTES for answers to discussion questions.

7. **Have the guidelines been prospectively validated?**

8. **What are the major recommendations of the guidelines?**

9. **What should you review with SH about optimal home BP monitoring?**

HOW SHOULD THE NEW FINDINGS CHANGE CURRENT THERAPY?

10. **Do the guidelines change your practice? How?**

APPLY THE NEW FINDINGS TO THE FOLLOWING CASE

BR is a 59-year-old obese Caucasian male who presents to your office for a routine follow-up visit. He has a history of diabetes, hypertension, hyperlipidemia, and depression. He currently smokes ½ pack per day. He mentions his blood sugars have been elevated lately with fasting levels in the 160s, though he is taking all of his chronic medications regularly. He is also frustrated about frequent episodes of erectile dysfunction (ED), which are becoming an increasing problem and negatively affecting his marriage.

BR's vitals today are BP 132/77 mmHg, HR 63, O2 sats 97% on room air, BMI 33.

BR is taking metformin 2 gm daily, atenolol 25 mg daily, lisinopril 20 mg daily, atorvastatin 40 mg daily, and sertraline 50 mg daily.

See LEADER NOTES for answers to discussion questions.

11. What chronic conditions or lifestyle choices may be contributing to BR's erectile dysfunction?

You discuss that BR's weight, uncontrolled blood sugars, and smoking may be contributing to ED and counsel him on managing these factors. BR agrees that he needs to work on his lifestyle to include weight loss, improved control of his diabetes, and smoking cessation. You help him set reasonable goals for these changes.

You also bring up that BR is taking a couple of medications that may be contributing to ED.

12. What medication adjustments might you consider for BR?

You discuss making some medication changes to limit the possibility that BR's medications are contributing to ED. BR agrees that he would like to make these changes. You also discuss the possibility of adding a PDE5 inhibitor at BR's follow-up visit if the problem persists.

At your 3-month follow-up, BR returns noting some improvement in ED but he continues to experience problems with maintaining an erection. You decide he may benefit from a PDE5 inhibitor.

13. What should you discuss with BR about PDE5 inhibitors?

BR is willing to try a PDE5 inhibitor, but says he's had numerous friends who take supplemental testosterone. In addition to helping them with ED, they say testosterone gives them more energy, helps with their memory, and makes them feel fantastic overall. BR wonders if this may be the solution to many of his problems.

14. What risks and benefits of testosterone therapy should you discuss with BR?

After discussion and counseling, BR opts to begin a PDE5 inhibitor and to continue to work on lifestyle changes. If these methods are unsuccessful in helping his sexual dysfunction, you both agree on the possibility of screening him for testosterone deficiency in the future.

See LEADER NOTES for answers to discussion questions.

REFERENCES

American Urological Association. Evaluation and management of testosterone deficiency (2018). https://www.auanet.org/guidelines/testosterone-deficiency-guideline. Accessed January 31, 2020.

Bhasin S, Brito JP, Cunningham GR, et al. Testosterone therapy in men with hypogonadism: an Endocrine Society clinical practice guideline. J Clin Endocrinol Metab 2018;103:1715-44.

Diem SJ, Greer NL, MacDonald R, et al. Efficacy and safety of testosterone treatment in men: an evidence report for a clinical practice guideline by the American College of Physicians. Ann Intern Med 2020 Jan 7. doi: 10.7326/M19-0830. [Epub ahead of print].

Houghton DE, Alsawas M, Barrioneuvo P, et al. Testosterone therapy and venous thromboembolism: a systematic review and meta-analysis. Thromb Res 2018;172:94-103.

Nguyen CP, Hirsch MS, Moeny D, et al. Testosterone and "age-related hypogonadism"—FDA concerns. N Engl J Med 2015;373:689-91.

Qaseem A, Forland F, Macbeth F, et al. Guidelines International Network: toward international standards for clinical practice guidelines. Ann Intern Med. 2012;156:525-31.

Qaseem A, Horwitch CA, Vijan S, et al. Testosterone treatment in adult men with age-related low testosterone: a clinical guideline from the American College of Physicians. Ann Intern Med 2020 Jan 7. doi: 10.7326/M19-0882. [Epub ahead of print].

Qaseem A, Kansagara D, Lin JS, et al. The development of clinical guidelines and guidance statements by the Clinical Guidelines Committee of the American College of Physicians: update of methods. Ann Intern Med. 2019;170:863-70.

Walker RF, Zakai NA, MacLehose RF, et al. Association of testosterone therapy with risk of venous thromboembolism among men with and without hypogonadism. JAMA Intern Med 2019 Nov 11. doi: 10.1001/jamainternmed.2019.5135. [Epub ahead of print].

Additional Pharmacist's Letter Resources available at PharmacistsLetter.com

Chart, Comparison of Testosterone Products. Pharmacist's Letter/Prescriber's Letter. March 2020.
Chart, Meds Affecting Male Fertility. Pharmacist's Letter/Prescriber's Letter. April 2018.
Chart, Comparison of PDE5 Inhibitors. Pharmacist's Letter/Prescriber's Letter. October 2018.
Chart, Comparison of Alpha-Blockers. Pharmacist's Letter/Prescriber's Letter. February 2016.
Chart, Prostatitis FAQs. Pharmacist's Letter/Prescriber's Letter. November 2018.
Chart, Potentially Harmful Drugs in the Elderly: Beers List. Pharmacist's Letter/Prescriber's Letter. March 2019.
Chart, Smoking Cessation Drug Therapy. Pharmacist's Letter/Prescriber's Letter. February 2019.
Toolbox, Smoking Cessation: Helping Patients Who Use Tobacco. Pharmacist's Letter/Prescriber's Letter. January 2017.
Chart, Choosing and Switching Antidepressants. Pharmacist's Letter/Prescriber's Letter. June 2018.

See LEADER NOTES for answers to discussion questions.