

BRINGING CLINICIANS TOGETHER TO DISCUSS CURRENT DRUG THERAPY

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MED SAFETY

More data linking PDE5 inhibitors (sildenafil, etc) to eye problems will raise questions about safety.

Labels already warn of rare optic neuropathy...which can cause loss of vision that may be permanent.

New evidence suggests that this and other serious eye conditions (retinal detachment, etc) occur in about 16 in 10,000 patients per year on a PDE5 inhibitor...higher than prior estimates.

But it's still too soon to say if these eye problems are more likely with certain PDE5 inhibitors...or with daily versus prn use.

Recommend seeking emergency care for vision loss. Explain that more common vision issues, such as light sensitivity or a blue-green tinge, are temporary and not harmful.

Use this as an opportunity to make patients aware of other possible PDE5 inhibitor side effects...and to limit drug interactions.

For example, labels also warn of hearing impairment...due to a handful of reports occurring shortly after taking a PDE5 inhibitor. Advise calling the prescriber for hearing changes, including tinnitus.

And continue to counsel patients to get immediate care for an erection lasting longer than 4 hours...even if it isn't painful.

Watch for CYP3A4 interactions. For example, avoid tadalafil and limit sildenafil to 25 mg with itraconazole or other strong inhibitors.

Educate patients to rise slowly if they're also on an antihypertensive or alpha-blocker (tamsulosin, etc)...and to avoid binge drinking with PDE5 inhibitors...due to possible BP drops.

Reinforce avoiding nitrates (isosorbide dinitrate, nitroglycerin, etc) within 12 hours after *Stendra* (avanafil)... 24 hours after sildenafil or vardenafil...and 48 hours after tadalafil.

See our resource, *Managing Erectile Dysfunction*, for nondrug measures and other med options.

(For more on this topic, see Clinical Resource #380606 at [PharmacistsLetter.com](https://www.pharmacistsletter.com).)

Etminan M, Sodhi M, Mikelberg FS, et al. Risk of Ocular Adverse Events Associated With Use of Phosphodiesterase 5 Inhibitors in Men in the US. *JAMA Ophthalmol*. 2022 May 1;140(5):480-484.

See LEADER NOTES for answers to discussion questions.

DISCUSSION QUESTIONS

OVERVIEW OF CURRENT THERAPY

1. What is known about phosphodiesterase (PDE) 5 inhibitor risks?

2. What type of study was this? How were the patients selected for inclusion?

3. How were the study groups defined?

4. How were the outcomes evaluated?

See [LEADER NOTES](#) for answers to discussion questions.

5. What were the outcomes of this study?

6. What were the strengths and weaknesses of this study?

7. Were the results expressed in terms we care about and can use?

HOW SHOULD THE NEW FINDINGS CHANGE CURRENT THERAPY?

8. Do the results change your practice? How?

See LEADER NOTES for answers to discussion questions.

APPLY THE NEW FINDINGS TO THE FOLLOWING CASE

HS is a 51-year-old male who presents to your office endorsing decreased libido, erectile dysfunction, weight gain, and increased fatigue. He is interested in checking his testosterone level to see about starting supplementation to help with his symptoms, especially to improve his sexual function.

9. What testing is needed to assess HS for hypogonadism?

You check HS's testosterone and it returns in the normal range. You counsel HS that he doesn't have "low T," so testosterone therapy isn't likely to improve his symptoms.

You discuss other measures to improve HS's sexual function, including increased exercise and reducing alcohol intake. You also discuss starting a PDE5 inhibitor, since these medications are considered first-line treatment for erectile dysfunction. HS agrees he would like to try one.

10. How should you counsel patients who start a PDE5 inhibitor?

You educate HS about common and rare side effects of PDE5 inhibitors, and what to do if he experiences a serious adverse effect.

See [LEADER NOTES](#) for answers to discussion questions.

REFERENCES

Dhaliwal A, Gupta M. PDE5 Inhibitors. StatPearls [Internet]. 2022 Apr 19. <https://www.ncbi.nlm.nih.gov/books/NBK549843/> (5-23-22).

Ernster VL. Nested case-control studies. *Prev Med*. 1994 Sep;23(5):587-90.

Etminan M, Sodhi M, Mikelberg FS, et al. Risk of Ocular Adverse Events Associated With Use of Phosphodiesterase 5 Inhibitors in Men in the US. *JAMA Ophthalmol*. 2022 May 1;140(5):480-484.

von Elm E, Altman DG, Egger M, et al. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement: guidelines for reporting observational studies. *Ann Intern Med*. 2007 Oct 16;147(8):573-7.

Walraven CV. A comparison of methods to correct for misclassification bias from administrative database diagnostic codes. *Int J Epidemiol*. 2018 Apr 1;47(2):605-616.

Additional Pharmacist's Letter Resources available at [PharmacistsLetter.com](https://www.pharmacistsletter.com)

Comparison of PDE5 Inhibitors. Pharmacist's Letter/Prescriber's Letter. February 2018.

Drug-Induced Adverse Eye Effects. Pharmacist's Letter/Prescriber's Letter. February 2020.

Managing Erectile Dysfunction. Pharmacist's Letter/Prescriber's Letter. December 2021.

Comparison of Testosterone Products. Pharmacist's Letter/Prescriber's Letter. March 2020.

Cytochrome P450 (CYP) Drug Interactions. Pharmacist's Letter/Prescriber's Letter. June 2020.

Benign Prostatic Hyperplasia Pharmacotherapy. Pharmacist's Letter/Prescriber's Letter. January 2022.

Meds for Pulmonary Arterial Hypertension. Pharmacist's Letter/Prescriber's Letter. March 2017.

Raynaud's Phenomenon FAQs. Pharmacist's Letter/Prescriber's Letter. December 2018.

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See **LEADER NOTES** for answers to discussion questions.