

Family Physicians Are Well Suited to Prescribe Isotretinoin

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In a busy practice, physicians may be discouraged by the prospect of having to log onto yet another website or navigate more protocols to carry out patient care. However, a few extra minutes (and a few clicks on the computer) can open up rewarding therapeutic opportunities when registering with iPledge to prescribe isotretinoin. Isotretinoin was approved by the U.S. Food and Drug Administration (FDA) in 1982 for the treatment of severe, recalcitrant nodular acne and has the potential to cure acne.¹

Family physicians are no strangers to prescribing medications with risks (e.g., anti-coagulants, opioids, hypoglycemic agents). They are well suited to monitor the laboratory, contraceptive, and adverse effect considerations associated with isotretinoin. Although patients can be referred to multiple subspecialists, this results in increased health care costs and fragmented care.

Isotretinoin is a vitamin A derivative that acts on retinoid receptors. It has an antiproliferative effect on sebaceous glands and reduces *Propionibacterium acnes* colonization and inflammation.¹ There is no age restriction, and it is typically taken twice daily with a starting dosage of 0.5 mg per kg per day. A cumulative treatment dose of 120 to 150 mg per kg is recommended.² Isotretinoin is expensive, but it is often approved by insurers after documentation of severe, recalcitrant nodular acne.

Isotretinoin is a Risk Evaluation and Mitigation Strategies medication, meaning that risk-mitigation measures beyond labeling are required.³ Historically, several risk-management programs have been developed to prevent fetal exposure. The only current program is iPledge, which was approved by the FDA in 2006. Patients should be told that no risk-management program is

perfect; even with iPledge, there were 122 isotretinoin-exposed pregnancies during its first year.^{1,4}

Isotretinoin carries an FDA boxed warning for teratogenicity and may be associated with suicidal ideation and inflammatory bowel disease, although no causal relationship has been established.^{1,4,5} A patient receiving isotretinoin should discontinue other acne medications—especially tetracycline antibiotics—because of the risk of pseudotumor cerebri. Other drug-drug interactions exist. Vitamin A supplementation should be avoided in patients receiving isotretinoin. Heavy alcohol use may reduce its effectiveness (and that of contraception).¹

Navigating isotretinoin and the iPledge process is fairly straightforward. Physicians can register with iPledge at <http://www.ipledgeprogram.com> by entering demographics and a Drug Enforcement Administration number; printing, signing, and faxing a form to the program; then waiting for a password to finish the online registration. Ample materials arrive by mail, including patient education packets with consent forms and identification cards.

Candidates for treatment are assigned an iPledge number, and the patient and physician must attest online that the patient is using two approved forms of contraceptive (abstinence is acceptable but not preferred). Medications must not be shared, and blood should not be donated during treatment and for one month after treatment is completed.

For reproductive-aged women, two negative pregnancy test results—obtained at least 30 days apart and while using two approved forms of contraception—are required before the first prescription is filled.¹ Follow-up visits with pregnancy testing typically occur monthly over the treatment course of four to five months, with a final visit and pregnancy test one month after treatment is complete. Blood monitoring generally includes complete metabolic panels, blood counts, and lipid levels. Authors of a recent review proposed that laboratory monitoring in ►

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otherwise healthy patients receiving standard doses of isotretinoin is not necessary after two months of therapy.⁶

With more than 20 million persons treated with isotretinoin since 1982, the adverse effect profile is well known.^{1,4} Cheilitis, dry skin, and dry eyes are so common that the absence of these symptoms suggests noncompliance. Lip balm, moisturizers, and eye drops should be used routinely. Elevated lipid levels are common but rarely severe enough to discontinue therapy (unless triglyceride levels exceed 800 mg per dL [9.0 mmol per L]). Hepatotoxicity and blood dyscrasias are rare. An acne flare may occur after treatment is initiated, especially in males with severe acne on the trunk and face. This may be alleviated by use of corticosteroids before or at initiation of treatment.

In our population of increasing chronic disease and complexity, the therapeutic power of isotretinoin may well be worth a few clicks on the computer and a little extra time counseling the patient.

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Correction

Incorrect arrow colors. The article, "Vision Loss in Older Adults" (August 1, 2016, p. 219), contained incorrectly colored arrows in *Figure 6* (p. 224). As seen in the reprinted figure below, the arrow on the left should have been red, pointing to the neovascularization; the arrow on the right should have been yellow, pointing to the intraretinal hemorrhages; and the arrow at the bottom should have been blue, pointing to the hard exudates. The online version of this article has been corrected and *Figure 6* is reprinted here.

EDITOR'S NOTE: To ensure that all readers have access to the corrected version of *Figure 6*, we have made online access to this article unrestricted at <http://www.aafp.org/afp/2016/0801/p219.html>. ■

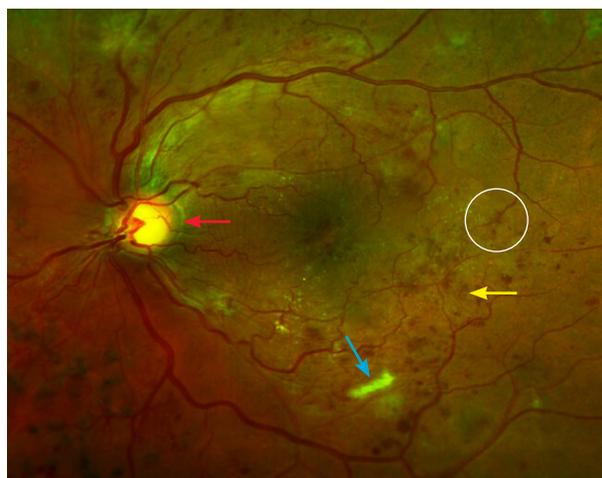


Figure 6. Proliferative diabetic retinopathy with hard exudates (blue arrow), aneurysm (circle), intraretinal hemorrhages (yellow arrow), and neovascularization (red arrow).