

BRINGING CLINICIANS TOGETHER TO DISCUSS CURRENT DRUG THERAPY

July 2022 • Vol. 19, No. 7

The following succinct analysis appeared in *Pharmacist's Letter*. Based on vol. 38, No. 7

LIVER DISEASE

You'll see more focus on managing nonalcoholic fatty liver disease (NAFLD)...partly due to new guidelines.

It's being called a "sleeper epidemic." About 1 in 4 patients have this fat buildup in the liver...but most don't have symptoms.

NAFLD often goes hand in hand with CV risk factors, such as insulin resistance or diabetes...obesity...and dyslipidemia.

And at least 1 in 7 of these patients have **nonalcoholic steatohepatitis (NASH)**...a more aggressive form of NAFLD that can lead to liver fibrosis, cirrhosis, or liver cancer.

The tough part is that there's not good evidence that meds decrease the risk of cirrhosis, liver transplant, or death.

Reinforce that weight loss is the most important treatment. A loss of over 5% reduces liver fat...over 10% can reverse fibrosis.

Optimize meds for diabetes, dyslipidemia, hypertension, etc.

Reassure that statins are safe in NAFLD...even in NASH.

For NASH, recommend pioglitazone or injectable semaglutide (*Ozempic*, *Wegovy*). These reduce liver fat and slow fibrosis progression...regardless of type 2 diabetes.

Suggest pioglitazone up to 30 mg/day...higher doses don't add benefit. But caution about edema and weight gain...and avoid it in heart failure.

Otherwise, advise titrating *Ozempic* or *Wegovy* toward max doses. There's not much evidence with other GLP-1 agonists.

But consider downsides...such as GI side effects, rare pancreatitis, and cost of about \$1,000/month. Expect prior auths.

Point out that SGLT2 inhibitors (*Jardiance*, etc) reduce liver fat in type 2 diabetes...but there aren't data on liver fibrosis.

Tell patients not to rely on milk thistle to help NAFLD.

And don't jump to vit E. Taking 800 IU/day might reduce liver fat and inflammation in patients with NASH withOUT diabetes...but there's no evidence in other patients. Plus some evidence suggests that doses of 400 IU/day or above are linked with CV risk.

(For more on this topic, see Clinical Resource #380706 at [PharmacistsLetter.com](https://www.pharmacistsletter.com).)

Cusi K, Isaacs S, Barb D, et al. American Association of Clinical Endocrinology Clinical Practice Guideline for the Diagnosis and Management of Nonalcoholic Fatty Liver Disease in Primary Care and Endocrinology Clinical Settings: Co-Sponsored by the American Association for the Study of Liver Diseases (AASLD). *Endocr Pract.* 2022 May;28(5):528-562.

See LEADER NOTES for answers to discussion questions.

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

7. Has this guideline been prospectively validated?

8. What are the major guideline recommendations for treatment of NAFLD, and what are considerations about these recommendations?

9. Are the guidelines expressed in terms we care about and can use?

HOW SHOULD THE NEW FINDINGS CHANGE CURRENT THERAPY?

10. Do the guidelines change your practice? How?

See LEADER NOTES for answers to discussion questions.

APPLY THE NEW FINDINGS TO THE FOLLOWING CASE

RM is a 57-year-old Black male with a past medical history significant for hypertension, hyperlipidemia, diabetes, and non-alcoholic steatohepatitis (NASH) who presents for a routine follow-up. You note that his blood pressure is well controlled today at 119/61 mmHg on carvedilol 3.125 mg twice daily and lisinopril 20 mg daily. He is also taking metformin 1,000 mg twice daily for his diabetes and atorvastatin 40 mg daily for his hyperlipidemia. Review of recent pre-visit lab work reveals an elevated A1c of 8.7%.

RM is interested in making lifestyle changes to help with weight loss and control of chronic medical conditions and asks you for specific recommendations.

11. What lifestyle recommendations should you make for RM?

RM returns to your office 3 months later having lost 10 lb. You celebrate his success! His lab work indicates that his A1c is improved, but still elevated at 7.9%.

12. What medication adjustments do you now consider for RM?

RM elects to start subcutaneous semaglutide. You provide teaching on dosing and administration and agree to see him back in 1 month to reassess. He returns in a month having lost an additional 5 lbs. He is tolerating the medication well with limited side effects. At this visit, he expresses concern about his cholesterol medication and its effect on his liver.

13. How do you counsel RM on his statin use, as well as any OTC medications that may affect his liver?

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

REFERENCES

American Association of Clinical Endocrinology. AACE Conflicts of Interests policy. Available: <https://pro.aace.com/about/aace-conflicts-interests-policy>. (Accessed June 15, 2022).

Ando Y, Jou JH. Nonalcoholic Fatty Liver Disease and Recent Guideline Updates. *Clin Liver Dis (Hoboken)*. 2021 Feb 1;17(1):23-28.

Budd J, Cusi K. Role of Agents for the Treatment of Diabetes in the Management of Nonalcoholic Fatty Liver Disease. *Curr Diab Rep*. 2020 Oct 5;20(11):59.

Chalasani N, Younossi Z, Lavine JE, et al. The diagnosis and management of non-alcoholic fatty liver disease: practice Guideline by the American Association for the Study of Liver Diseases, American College of Gastroenterology, and the American Gastroenterological Association. *Hepatology*. 2012 Jun;55(6):2005-23.

Chalasani N, Younossi Z, Lavine JE, et al. The diagnosis and management of nonalcoholic fatty liver disease: Practice guidance from the American Association for the Study of Liver Diseases. *Hepatology*. 2018 Jan;67(1):328-357.

Cusi K, Isaacs S, Barb D, et al. American Association of Clinical Endocrinology Clinical Practice Guideline for the Diagnosis and Management of Nonalcoholic Fatty Liver Disease in Primary Care and Endocrinology Clinical Settings: Co-Sponsored by the American Association for the Study of Liver Diseases (AASLD). *Endocr Pract*. 2022 May;28(5):528-562.

Gastaldelli A, Cusi K. From NASH to diabetes and from diabetes to NASH: Mechanisms and treatment options. *JHEP Rep*. 2019 Jul 19;1(4):312-328.

Mechanick JI, Pessah-Pollack R, Camacho P, et al. AMERICAN ASSOCIATION OF CLINICAL ENDOCRINOLOGISTS AND AMERICAN COLLEGE OF ENDOCRINOLOGY PROTOCOL FOR STANDARDIZED PRODUCTION OF CLINICAL PRACTICE GUIDELINES, ALGORITHMS, AND CHECKLISTS - 2017 UPDATE. *Endocr Pract*. 2017 Aug;23(8):1006-1021.

Pradhan R, Yin H, Yu O, Azoulay L. Glucagon-Like Peptide 1 Receptor Agonists and Sodium-Glucose Cotransporter 2 Inhibitors and Risk of Nonalcoholic Fatty Liver Disease Among Patients With Type 2 Diabetes. *Diabetes Care*. 2022 Apr 1;45(4):819-829.

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

Drug-Induced Liver Injury. *Pharmacist's Letter and Prescriber's Letter*. May 2022.

Weight Loss: Helping Your Overweight and Obese Patients. *Pharmacist's Letter and Prescriber's Letter* May 2021.

Weight Loss Products. *Pharmacist's Letter and Prescriber's Letter*. August 2021.

Diabetes Medications and Cardiovascular Impact. *Pharmacist's Letter and Prescriber's Letter*. October 2021.

Treatment of Hypertension (United States). *Pharmacist's Letter and Prescriber's Letter*. January 2018.

2018 ACC/AHA Cholesterol Guidelines. *Pharmacist's Letter and Prescriber's Letter*. January 2019.

Non-Statin Lipid-Lowering Agents. *Pharmacist's Letter and Prescriber's Letter*. February 2022.

Bariatric Surgery and Medication Use. *Pharmacist's Letter and Prescriber's Letter*. March 2018.

Pharmacist's Letter Journal Club Editors:

Lori Dickerson, PharmD, FCCP, *Editor*; Jennifer Nieman, PharmD, BCPS, *Associate Editor*; Alpa Desai, DO, Department of Community Health & Family Medicine, University of Florida, College of Medicine, Newbury, FL; Lisa D. Mims, MD, Department of Family Medicine, Medical University of South Carolina, Charleston, SC, *Contributing Editors*.

DISCLOSURE:

The editors of this activity and its publisher, Therapeutic Research Center (TRC), have no relevant financial interests related to the products or services covered by this activity. TRC does not receive any commercial support and does not accept any advertising. It is completely independent and is supported entirely by subscriptions. TRC focuses on delivering completely objective, unbiased drug information and advice for the benefit of subscribers.

See LEADER NOTES for answers to discussion questions.