When Baffled About NAFLD and MAFLD: Beyond Alcohol and Drug Avoidance, Applying Evidence-Based Lifestyle Interventions in MAFLD Management

Presented by Dr. Adam Morawski,MD, CCFP, DipABLM

DR. ADAM MORAWSKI

Dr. Adam Morawski delivered a practical overview of metabolic dysfunction-associated steatotic liver disease (MASLD), focusing on how primary care providers can identify patients at risk, assess fibrosis risk, and incorporate evidence-based lifestyle interventions into routine care. The session emphasized that lifestyle medicine complements standard medical management and that sustainable behaviour change requires individualized goals, patient engagement, and ongoing follow-up.

MASLD Reflects Underlying Metabolic Dysfunction

Dr. Morawski reviewed the evolution in terminology from NAFLD to MAFLD/MASLD. Unlike NAFLD, which was traditionally a diagnosis of exclusion, MASLD recognizes hepatic steatosis occurring alongside cardiometabolic risk factors such as obesity, prediabetes or diabetes, hypertension, elevated triglycerides, or low HDL.

Insulin resistance is central to the disease process. Chronic energy surplus and ectopic lipid accumulation contribute to insulin resistance, inflammatory signalling, mitochondrial dysfunction, fibrosis, and eventually cirrhosis. Dr. Morawski emphasized the importance of recognizing metabolic liver disease early, particularly in patients with prediabetes and diabetes.

FIB-4 Guides Risk Stratification and Referral

Dr. Morawski highlighted FIB-4 as an accessible tool for assessing the risk of progression to fibrosis. He noted that FIB-4 has been incorporated into Alberta laboratory reporting, making it particularly practical for primary care.

Key thresholds:

- ≤1.3: Low risk – generally appropriate for management in primary care
- 1.3–2.6: Intermediate risk – consider further assessment with shear wave elastography
- ≥2.6: Higher risk – generally consider referral to hepatology

He also discussed HOMA-IR as a tool he occasionally uses when insulin resistance is suspected despite relatively normal glucose or A1C. Fasting insulin and fasting glucose must be collected at the same time, with a HOMA-IR below 2 generally considered normal.

Nutrition and Weight Loss Can Meaningfully Improve MASLD

Nutrition recommendations centred on a **whole-food, plant-heavy dietary pattern**, including vegetables, fruits, legumes, whole grains, nuts, fish, olive oil, and plant-based proteins, while reducing processed foods, red meat, saturated fat, and excessive carbohydrate intake. Dr. Morawski distinguished carbohydrate restriction from a traditional high-fat ketogenic diet. Although reducing carbohydrates may help some patients improve metabolic flexibility, he cautioned against high-fat keto approaches in MASLD and instead favoured **lower-sugar, moderate-fat strategies**.

He also emphasized that weight loss does not need to be extreme to produce meaningful liver improvements. Even modest reductions can improve steatosis, while greater sustained weight loss is associated with increasing likelihood of disease resolution and fibrosis regression.

Clinical Pearl
Caloric deficits should generally be conservative. Dr. Morawski cautioned that aggressive restriction can trigger metabolic adaptation, making a sustainable approach preferable to rapid weight loss.

Exercise, Sleep, Stress and Social Connection Matter

Dr. Morawski framed MASLD management through the six pillars of lifestyle medicine: nutrition, physical activity, restorative sleep, stress management, social connectedness, and avoidance of risky substances.

Exercise should prioritize consistency and sustainability rather than a single “ideal” modality. Sleep and mental health should also be assessed because chronic stress and elevated cortisol contribute to gluconeogenesis and insulin resistance. Social connectedness was highlighted as another important determinant of long-term health, with opportunities to involve Primary Care Behavioural Health and other multidisciplinary supports.

Alcohol avoidance was recommended where possible, and smoking cessation remains important because smoking contributes to oxidative stress and fibrosis.

Behaviour Change Requires More Than Giving Advice

A central theme of the presentation was that simply telling patients to “eat better” or “exercise more” is often ineffective. Dr. Morawski recommended motivational interviewing and SMART goals to translate recommendations into specific behaviours.

For example, rather than advising a patient to eat more vegetables, a goal could be to eat vegetables three times per week for the next three weeks and record this in a food log. He encouraged open-ended questions, affirmations, reflective listening, non-judgmental communication, and celebrating successes to strengthen patient self-efficacy.

Practical Approach
Primary Care Providers do not need to address all six lifestyle pillars at once. Dr. Morawski recommended identifying the one or two areas where a patient currently needs the greatest support and incorporating these conversations into routine follow-up visits.

Follow-Up and Multidisciplinary Care

Accountability was emphasized as an important component of sustained behaviour change. Some evidence supports follow-up as frequently as every two weeks. Where this is impractical for physicians, dietitians, psychologists, nurse practitioners, and other multidisciplinary team members can help maintain consistent support.

KEY TAKEAWAYS

- MASLD should be understood and managed as a metabolic disease rather than simply a liver abnormality.
- FIB-4 provides a practical method for determining which patients can remain in primary care and which require additional investigation or referral.
- Sustainable nutrition, weight reduction, physical activity, sleep, stress management, social connection, and substance avoidance all contribute to management.
- High-fat ketogenic diets should not be conflated with therapeutic carbohydrate reduction in MASLD.
- Motivational interviewing and specific SMART goals are more actionable than broad lifestyle recommendations.
- Lifestyle pillars can be addressed progressively rather than simultaneously.
- Regular follow-up and multidisciplinary support are important for maintaining long-term behaviour change.