PATIENT-CENTERED CARE: TAILORING MASLD MANAGEMENT FOR OPTIMAL OUTCOMES

American Association of NURSE PRACTITIONERS®

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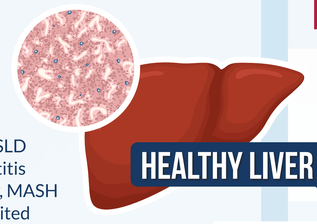
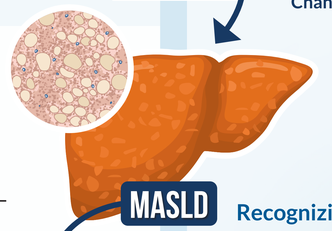
INTRODUCTION

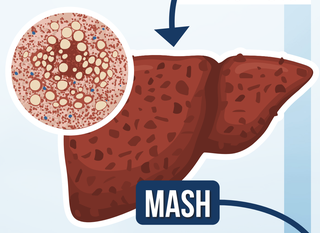
Metabolic dysfunction–associated steatotic liver disease (MASLD, previously nonalcoholic fatty liver disease or NAFLD) is closely linked with obesity, diabetes and other cardiometabolic conditions, yet it remains underrecognized in routine practice. As rates of metabolic disease rise, more patients are developing MASLD and progressing to metabolic dysfunction-associated steatohepatitis (MASH), cirrhosis and hepatocellular carcinoma (HCC). Currently, MASH is the fastest-growing indicator for liver transplantation in the United States, and MASLD/MASH is the leading cause of HCC among women and Central and South American individuals.



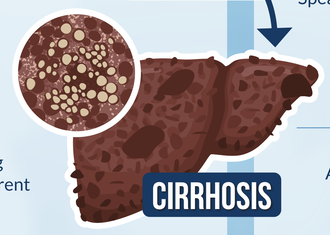
25%-38%



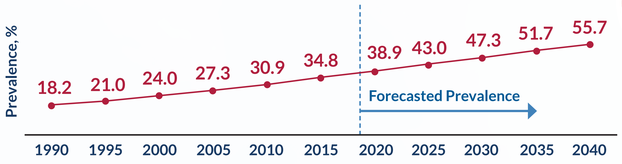
12%-40%



15%-25%



Global Prevalence of MASLD: Current Trends and Forecast



Despite the substantial clinical burden, many clinicians are unfamiliar with streamlined diagnostic pathways, appropriate use of noninvasive testing and evidence-based approaches to staging and treatment. These gaps contribute to missed screening opportunities, delayed risk stratification and fragmented management.

This educational initiative was developed to address these urgent needs by strengthening clinicians' ability to identify high-risk patients, apply noninvasive diagnostic tools and deliver integrated, guideline-aligned MASLD/MASH care.

Learning Objectives

- Describe the expanding clinical gravity of MASLD and characterize the need for streamlined evaluation, treatment and referral pathways.
- Identify high-risk patients for MASLD based on risk factors.
- Utilize non-invasive diagnostic methods to diagnose and risk stratify patients with MASLD.
- Design a multidisciplinary care plan for diagnosing, risk stratifying and treating patients with MASLD and/or MASH aligned with current management guidelines.

RESULTS: ENDURING ON-DEMAND ACTIVITY

Participation and Demographics

3397 Completions (n)

97% of anticipated completions!

- **89% provide direct patient care.**
- **Largest Setting:** 39% (n=1318) practice in Family/Primary Care.

Knowledge and Competence Gains

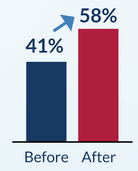
Change in Total Correct Answers

41% Increase

Z = 33.38

ES = 0.57 (Large)

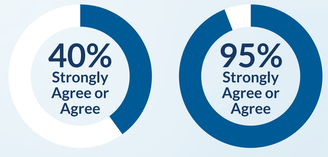
P<0.001



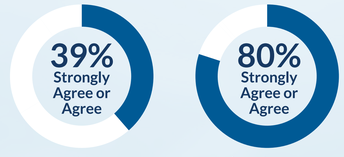
- Statistically significant (*P*<0.001) increases in correct answers across **all 7 pre/post test questions.**
- Prior to the activity, most learners got **only 2 out of 7 questions correct**, whereas after the activity, **most got 6 out of 7 questions correct**.

Recognizing Risk for MASLD

I can recognize the risk factors for MASLD.



I routinely identify patients who would benefit from a primary risk assessment for MASLD.



Satisfaction With Activity

Speakers Were Effective

Learning Objectives Were Met

Content Was Fair and Balanced

Activity Increased My Knowledge About MASLD

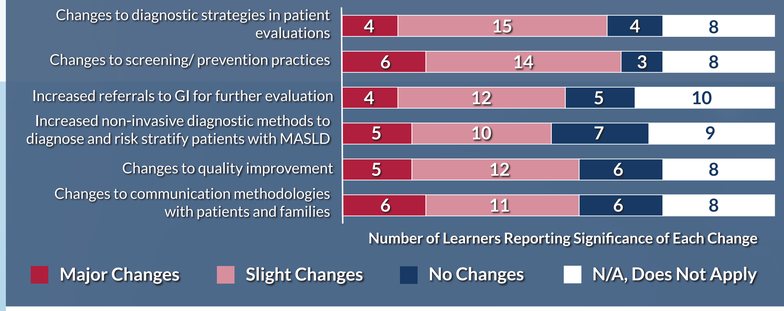
Content Was Free of Commercial Bias

RESULTS: FOLLOW-UP SURVEY

31 Responders to Survey (n)

Please rate the significance of the changes you've made regarding the following:

28 Learners (90%) reported NO BARRIERS to implementing changes.



RESULTS: SIMULATION

Participation and Demographics

2858 Completions (n)

148% of anticipated completions!

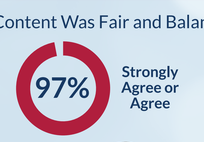
- **91% provide direct patient care.**
- **Largest Setting:** 49% practice in Family/ Primary Care

Satisfaction With Activity

Format Was Effective

Learning Objectives Were Met

Content Was Fair and Balanced



Content Was Free of Commercial Bias

This simulation increased my ability to create a multidisciplinary care plan for patients with MASH in alignment with current treatment guidelines.

Confidence and Patient Impact

Since completing this scenario, I am better able to create a multidisciplinary care plan for patients with MASLD.

Total Patients Seen per Month Impacted by the Simulation Activity

16,784

PROGRAM OVERVIEW

Enduring On-Demand Activity

- **Dates:** Sept. 1, 2024 – Oct. 1, 2025
- **Accreditation:** 1.0 CE Credit
- **Anticipated Completions:** 3500

Follow-Up Survey

- Administered 60 days after activity completion to assess changes and barriers.

AliveSim™ Simulation

- **Dates:** Sept. 1 - 30, 2024
- **Accreditation:** 0.5 CE Credit
- Learners make clinical choices and receive expert mentoring in simulated real-world scenarios.
- **Anticipated Completions:** 2000

INTERACTIVE 3D GAME TECHNOLOGY

SKILL-DRIVEN LEARNING METHODOLOGIES

DECISION-SPECIFIC CLINICAL INSIGHTS

Nurse Practitioner Clinical Handout

- Professionally designed, downloadable handout (unaccredited) to assist patient education.

METHODS

Learners completed pre- and post-activity knowledge, competence and evaluation questions aligned with learning objectives. A paired analysis was conducted using McNemar and Wilcoxon tests to assess changes ($P \leq 0.05$). Software included Microsoft Excel (aggregating data) and IBM SPSS Statistics v31.0.0.0 (statistical analysis). Effect size quantified magnitude of change (0.10 = Small, 0.30 = Medium, 0.50 = Large). Demographics; confidence and preparedness; and intent-to-change responses were analyzed descriptively.

CONCLUSION AND REFERENCES

This initiative demonstrated that targeted education paired with innovative simulation-based learning can meaningfully strengthen clinician competence in MASLD screening, staging and treatment. Learners showed substantial gains in knowledge, significant correction of common clinical errors and improved confidence in applying guideline-aligned workflows. These changes translated into real-world practice improvements, with participants reporting increased identification of high-risk patients, greater use of noninvasive diagnostic tools and enhanced multidisciplinary management across diverse care settings. The strong engagement, high satisfaction and measurable behavior change observed across modalities underscore the value of continued MASLD-focused education to support earlier detection, more accurate risk stratification and improved patient outcomes.

References: Rinella ME et al. *J Hepatol*. 2023;79(6):1542-1556; Arshad T et al. *Hepatol Commun*. 2021;5(10):1676-1688; Harrison SA et al. *J Hepatol*. 2021;75(2):284-291; Rao G et al. *Front Med (Lausanne)*. 2023;10:1294267; Radu F et al. *Diagnostics (Basel)*. 2023;13(4):614; Le MH et al. *Clin Mol Hepatol*. 2022;28(4):841-850; Pinheiro PS et al. *Clin Gastroenterol Hepatol*. 2024;22(3):562-571.e8; Younossi ZM et al. *Clin Gastroenterol Hepatol*. 2021;19(3):580-589.e5; Duell PB et al. *Arterioscler Thromb Vasc Biol*. 2022;42(6):e168-e185; Fu CE et al. *Endocr Pract*. 2023;29(1):33-39.

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