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# Who should be screened for NAFLD/NASH in primary care population? When is it necessary?

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**AGA Call to Action: July 2020**

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- **Advisory Committees:** Gilead, Galmed, Intercept, Gemphire, Arrowhead Research, Tobira, NGM, Conatus, Octeta
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# Outline

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- Current AASLD practice guidance
- Approach to identify patients who are at high risk of having advanced fibrosis or high-risk NASH
- Emerging evidence on high-risk group patients
  - Diabetes
  - Metabolic syndrome
  - Family history of NAFLD cirrhosis
- Is there a role of genetic risk score?

# AASLD Practice Guidance on NAFLD

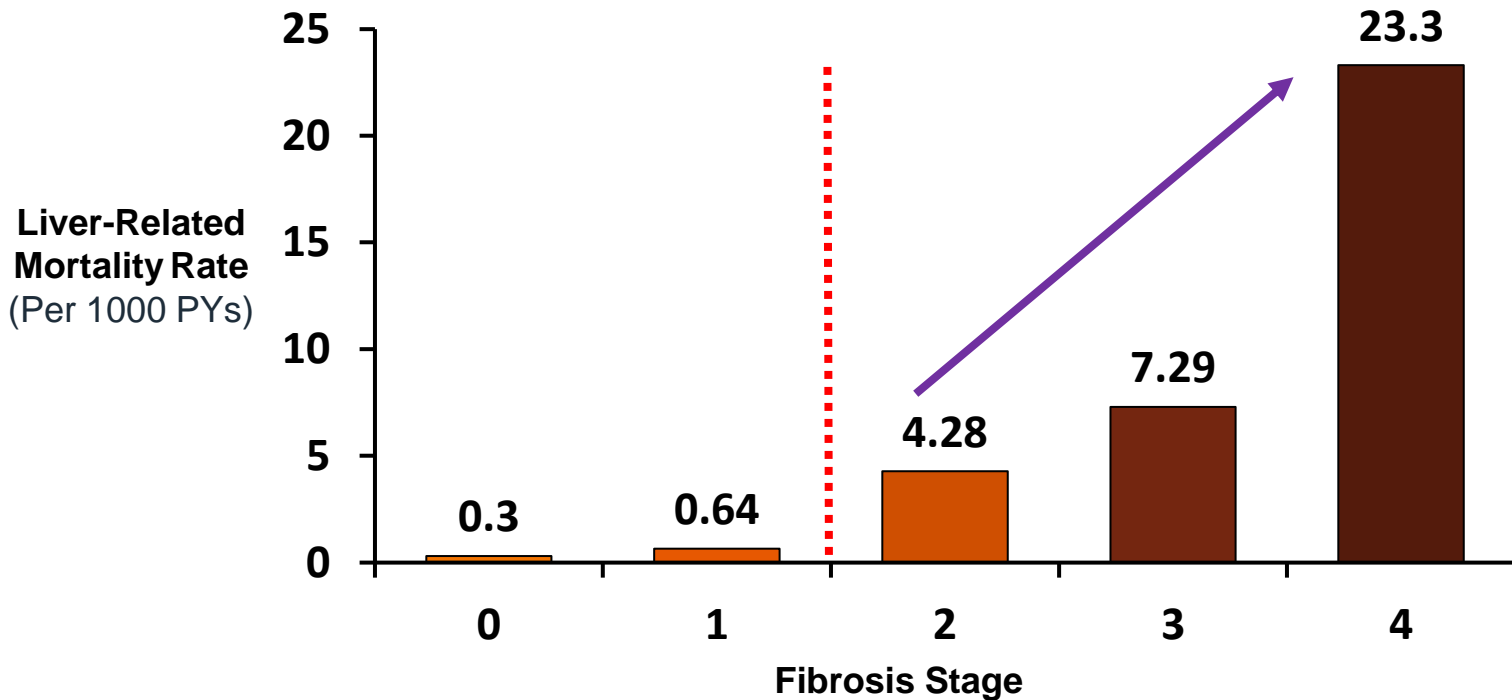
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## *Guidance Statements:*

*4. Routine Screening for NAFLD in high-risk groups attending primary care, diabetes, or obesity clinics is not advised at this time because of uncertainties surrounding diagnostic tests and treatment options, along with lack of knowledge related to long-term benefits and cost-effectiveness of screening.*

*5. There should be a high index of suspicion for NAFLD and NASH in patients with type 2 diabetes. Clinical decision aids such as NFS or fibrosis-4 index (FIB-4) or vibration controlled transient elastography (VCTE) can be used to identify those at low or high risk for advanced fibrosis (bridging fibrosis or cirrhosis).*

# Association between stage of fibrosis and risk of liver-related mortality



# Predictors of high-risk NASH and fibrosis

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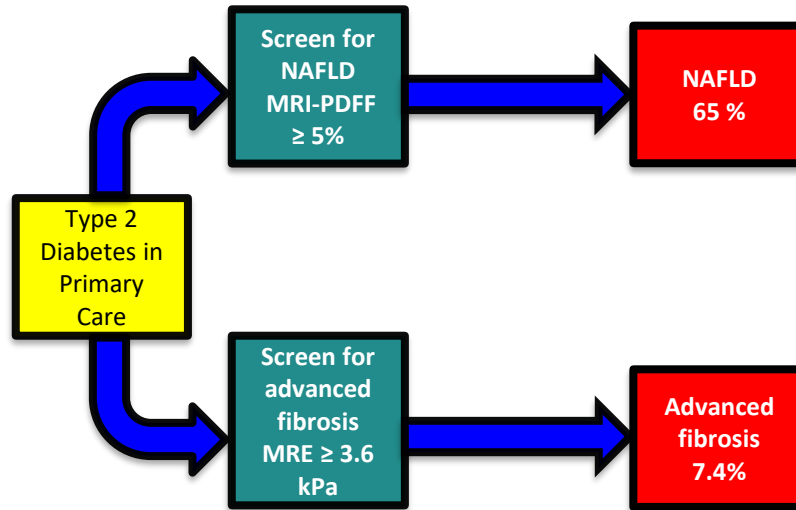
- Obesity
- Metabolic Syndrome
- Diabetes
- Family history of NAFLD cirrhosis in first-degree relatives

# Data for prevalence

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- Obesity: systematic data on screening not available
- Metabolic syndrome: Multiple features of metabolic syndrome higher risk of NASH but limited prospective data on screening
- Diabetes: Probably an area with emerging evidence of high-risk for NASH
  - Prevalence of NASH approximately 50%
  - Prevalence of advanced fibrosis: 7-10%
- Family history of NAFLD cirrhosis in first-degree relatives
  - Prevalence of advanced fibrosis 18%

# Prevalence of NAFLD and advanced fibrosis among patients with type 2 diabetes in primary care





# Screening for advanced fibrosis in diabetes

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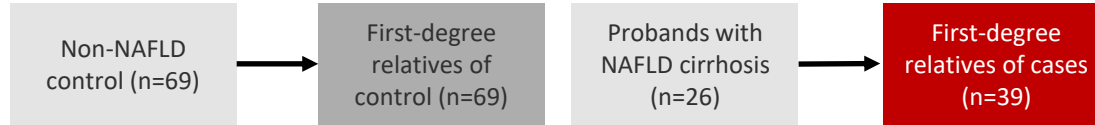
- **Among 1918 Chinese diabetic patients**
  - The prevalence of NAFLD was 73%
  - The prevalence of elevated liver stiffness was 18%
  
- **Among 94 who underwent a liver biopsy**
  - 56% had NASH
  - 50% had advanced fibrosis
  
- **Progression of liver stiffness from  $< 10$  Kpa to  $\geq 10$  Kpa**
  - 4.3% over 3 years

# Should there be screening of family members of patients with NAFLD?

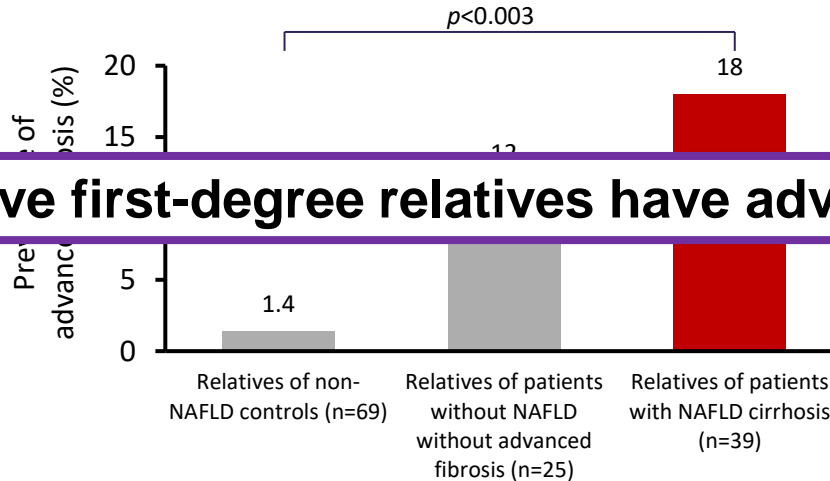
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- AASLD Practice Guidance:
  - Systematic screening of family members for NAFLD is not recommended currently

# Increased familial risk of advanced fibrosis



Risk of advanced fibrosis is significantly increased in first-degree relatives with NAFLD cirrhosis

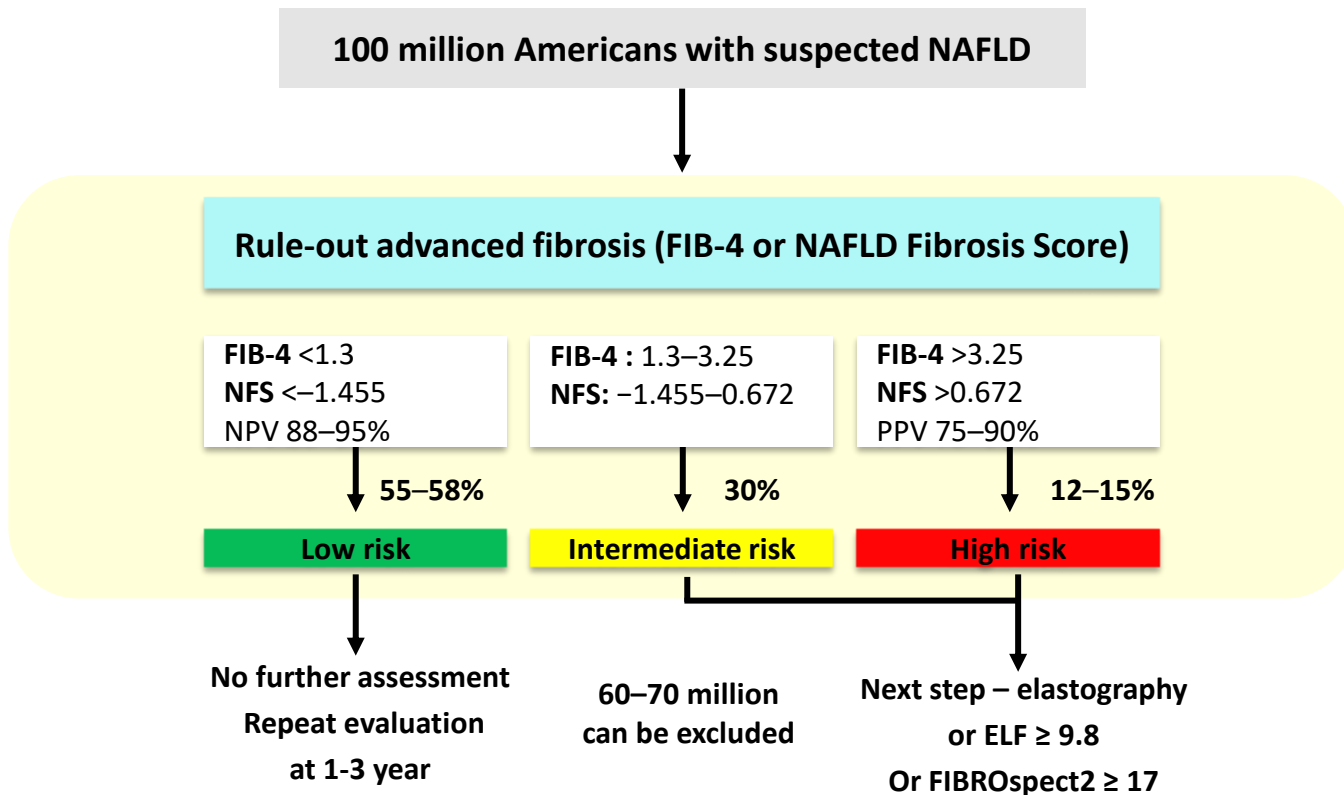


**One in five first-degree relatives have advanced fibrosis**

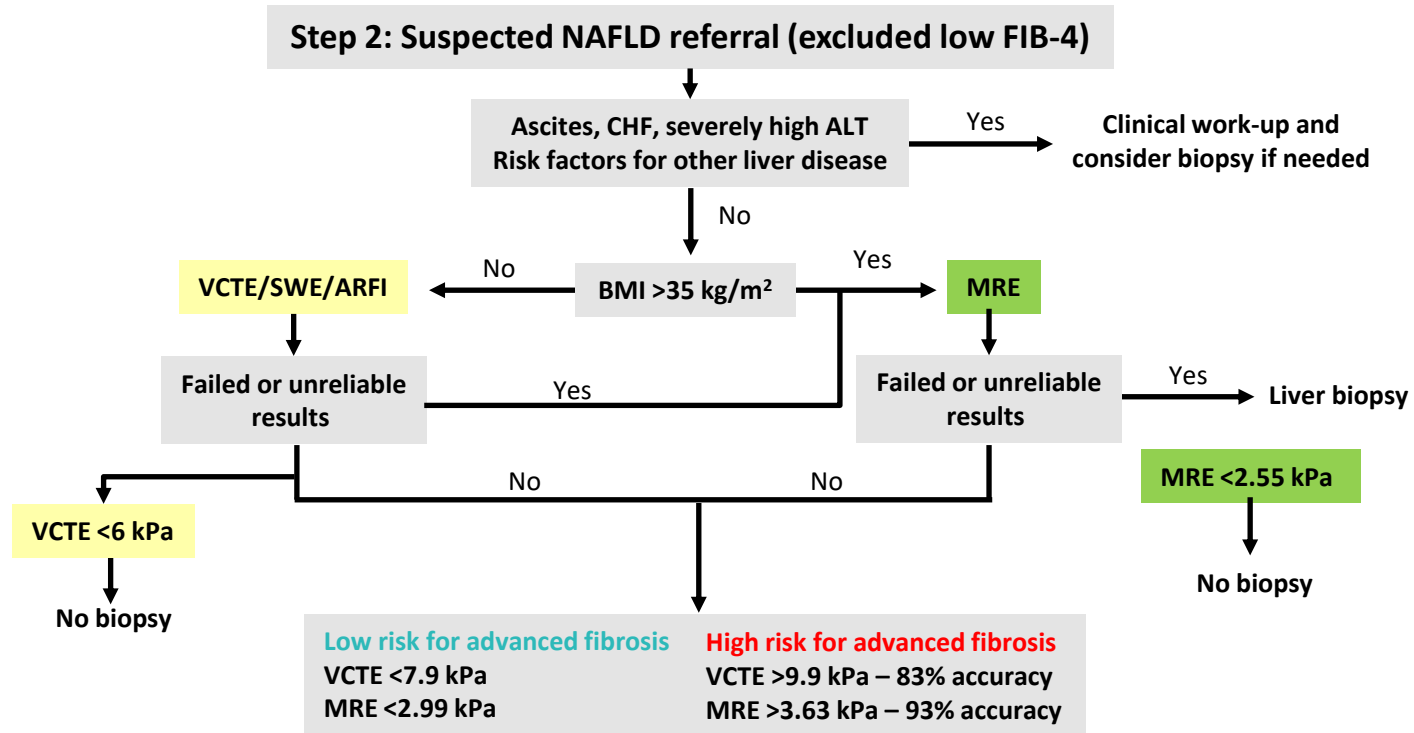
# **Optimal strategy for population at risk management**

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# Optimizing risk management



# Elastography in assessing advanced fibrosis



ARFI, acoustic radiation force impulse; ALT, alanine aminotransferase; BMI, body mass index; CHF, congestive heart failure; MRE, magnetic resonance elastography; SWE, shear-wave elastography; VCTE, vibration-controlled transient elastography.

Tapper EB and Loomba R. *Nat Rev Gastroenterol Hepatol* 2018;15:274–282.

# Summary

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- **Current AASLD guidance does not recommend routine screening for NAFLD**
- **Emerging evidence is accumulating to suggest screening for advanced fibrosis among patients with type 2 diabetes**
  - Larger screening studies in the United States are underway
- **Emerging evidence**
  - Screening for advanced fibrosis in first-degree relatives of NAFLD cirrhosis
- **Advances in screening strategies**
  - FIB-4
  - VCTE, MRE
  - Utility in screening high risk- Diabetes, family members of cirrhosis



# Thank you

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