Beth Israel Lahey Health
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Addressing the Gap in NAFLD Screening

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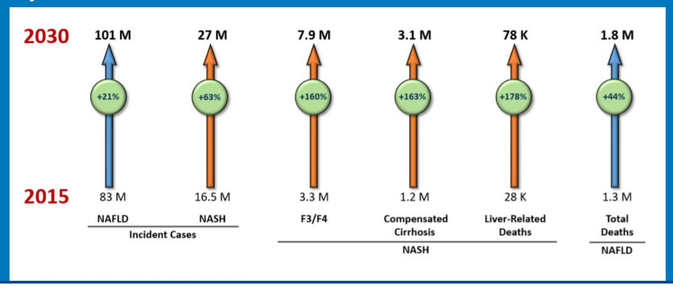
Introduction / Problem

- Non alcoholic fatty liver disease (NAFLD) is a spectrum of liver disease that causes steatosis of the liver in the absence of alcohol consumption.
- 50% of cases of advanced fibrosis from NAFLD are not discovered until they present with decompensated cirrhosis, which has an 85% 5 year mortality without transplant.
- The incidence of NAFLD is projected to increase significantly by 2030 and will cause increased incidence of NASH cirrhosis, HCC, and associated complications.
- NAFLD currently leads to $103 billion dollar in medical expenses annually.
- Diabetics have very high rates of NAFLD, with some studies showing 71% of diabetics having NAFLD.
- 23.1% of diabetic patients have F3-F4 fibrosis, which would warrant HCC and variceal screening.
- The American Diabetes Association currently recommends screening patients with diabetes for NAFLD with yearly LFTs.
- 50% of diabetics with NAFLD and 56% of diabetics with NASH actually have normal LFTs.
- Fibroscan screening has the potential to identify patients with F3/F4 fibrosis with higher sensitivity allowing for more early identification of HCC and varices.



Aim / Goal

- Identify patients with F3/F4 fibrosis prior to presentation with decompensated cirrhosis and enroll these patients into HCC and variceal screening pathways.
- Retrospectively review a cohort of patients with diabetes in the primary care setting to determine how well we are currently adhering to the ADA's current guideline of yearly LFT screening.
- Determine how often fibroscans are ordered for patients with abnormal LFTs or steatosis on imaging.
- Determine feasibility of direct to fibroscam screening strategy.

Methods

- Using Arcadia, we generated a list of 101 diabetic patients seen at HCA clinic by three of our study members.
- All patients were manually chart reviewed to determine whether or not they were getting yearly LFT screening. Any patients with a 2 year or greater gap with no LFTs starting from the time of their diabetes diagnosis was considered to not be getting yearly LFTs.
- All patients were chart reviewed to determine if they ever had persistently abnormal LFTs on at least 2 consecutive checks at any point in time.
- We reviewed prior imaging to determine if patients ever had incidental findings of steatosis of the liver.

Results

37% of patients with diabetes were not being screened yearly with LFTs

59% of patients with diabetes had past or present abnormal LFTs or imaging showing steatosis but had never received fibroscan

Conclusions / Next Steps

At HCA clinic, there is poor adherence to the current ADA guideline recommendation for yearly LFTs to screen for NAFLD among diabetic patients. Furthermore, the majority of diabetic patients have had abnormal LFTs or incidental steatosis of the liver on imaging at some point in their care but have not been ordered for fibroscan to follow this up. Offering one-time fibroscan may therefore be a superior screening strategy. We developed a call outreach effort to offer fibroscan to these patients. The outreach effort and our results are described on the following slide.

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Patient Perceptions about NAFLD and its Screening

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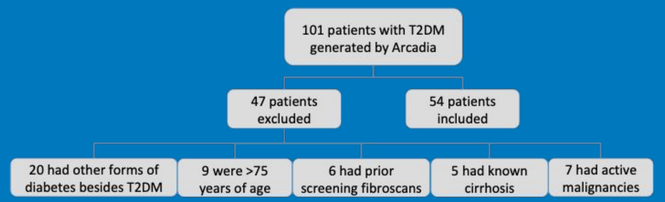
Aim/Goal

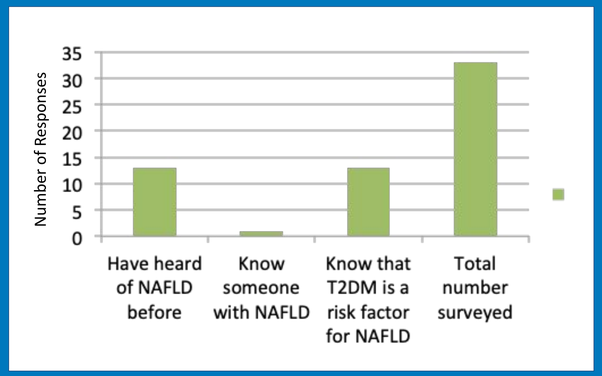
- Ascertain patient-related barriers to NAFLD screening by gauaging knowledge and interest in NAFLD screening in patients by outreach calls
- Implement a direct-to-fibroscan approach to NAFLD screening for those patients who agree to be screened with this approach

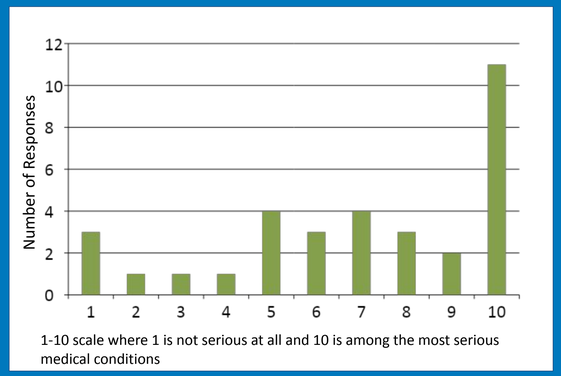
Methods



A subset of patients were identified through Arcadia and sorted with exclusion criteria. The remaining patients were contacted with outreach calls using a standardized script

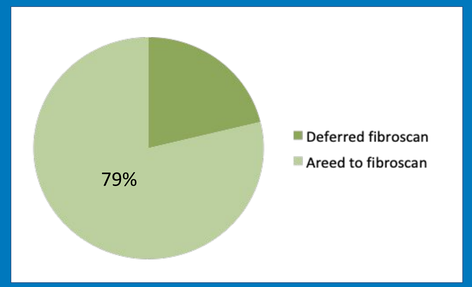
Results





1-10 scale where 1 is not serious at all and 10 is among the most serious medical conditions

Results continued



What Patients had to say:

- "My liver numbers (liver function tests) are excellent. What else would justify doing it (fibroscan)?"
- "Do my [diabetes specialists] know about this? None of them mentioned anything about fatty liver disease."
- "I have an appointment with my primary care doctor tomorrow. I want to talk to [them] about it instead."
- Patient was afraid the call meant she had fatty liver disease because nobody had mentioned it to her before.
- Patient stated she was nervous about the [fibroscan] results because she knows diabetes is bad and it "puts you at risk for everything."

Conclusions

- Knowledge and awareness about NAFLD are low among patients with T2DM. For many, it had not been discussed by their primary care doctors or specialists.
- Most patients intuitively believe that fatty liver disease is serious and warrants screening.
- Patient hesitancy regarding NAFLD screening may be improved by discussions initiated by the primary care doctor as part of healthcare maintenance.
- Outreach calls using a standardized script may be an effective method in improving rates of NAFLD screening in patients with T2DM.

Next Steps

- Follow up on fibroscan completions rates in three months from the time they were ordered to determine adherence
- Follow the results of fibroscans ordered. This may inform whether a direct-to-fibroscan approach identifies advanced fibrosis in those who otherwise would not have been screened according to guidelines that recommend liver function testing.

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