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Title	Risk stratification of patients with non-alcoholic fatty liver disease in primary care: a cross-sectional study
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Reviewer 1	Giada Sebastiani
Institution	Research Institute of the McGill University Health Centre, Montréal, Que.
General comments (author response in bold)	<p>Main comments</p> <p>1. SWE pathway decreased the referral to Hepatology, compared to FIB-4 (cut-off 1.30). However, the authors should discuss the feasibility and limitations of applying this approach to other clinical realities. Indeed, SWE is not a widely available tool, such as transient elastography for example, and its large-scale implementation may be limited by the fact that it is less of a bedside tool and it is mostly prerogative of radiologists.</p> <p><b>We agree with these insightful comments. Although SWE is now available in a number of large urban centers, many radiology centres have not adopted the technology and SWE is less accessible to hepatologists compared to transient elastography. Therefore, we added the following paragraph in our discussion “Finally, we report the implementation of SWE-based on using a NAFLD risk stratification pathway. SWE is only available in some urban radiological centers. Furthermore, training of radiologists and establishment of a proper reporting system are required before implementing SWE on a wider scale. We recommend that each jurisdiction should implement pathway to risk stratify NAFLD patients with serum-based (such as FIB-4) and/or radiological (such as SWE or TE) modalities based on locally available resources.”, page 18.</b></p> <p>2. Is there information on how many patients referred to Hepatology underwent a liver biopsy, and what was the histologic result on these patients?</p> <p><b>Very good points. We are preparing a manuscript on the analysis and outcomes of NAFLD patients assessed in Calgary high risk NAFLD patients, and the correlation between SWE, TE and liver biopsy. Due to manuscript word limitations and the stated paper focus, we were unable to present such data in our current manuscript.</b></p> <p>3. It would be very interesting to know the characteristics of the 21 patients with positive SWE but negative FIB-4 (&lt;1.30).</p> <p><b>Again, excellent point by the reviewer. We currently have been granted Ethics approval to study patient characteristics with discordant results between SWE and FIB-4, and compare their assessments to a third modality (TE). This will be the focus of a future study by our group.</b></p> <p>4. Please correct typo in Figure 1: propable</p> <p><b>We thank the reviewer for bringing our attention to this typo. We have corrected the misspelling.</b></p>
Reviewer 2	Chris Estes
Institution	CDA Foundation, Lafayette, Colo.
General comments (author response in bold)	<p>1. Abstract - Results: Suggest clarifying “were prevalent” with, “A majority had elevated liver biochemistry and / or obesity”, as prevalent can mean as few as one</p>

bold)

case.

**We agree with the reviewer and have changed this sentence in the abstract results to read “A majority of our cohort had elevated liver biochemistry (52%) and obesity (60%)”, page 3.**

2. Introduction: “abnormal liver tests in 18-30% of patients, with 25-29% having NAFLD” should be clarified so that readers understand the denominator is the same for both and not 25-29% of 18-30%.

**Again, we agree with the reviewer. In fact, 25-29% of patients with elevated liver enzymes who presented to primary care had NAFLD. Therefore, to make the sentence clear, we changed the sentence to “In recent studies, abnormal liver tests were found in 18-30% of patients in primary care, among those, 25-29% were due to NAFLD.”, page 5.**

3. Methods – Need to develop a NAFLD clinical pathway: Interesting that NAFLD cases already represent 40% of referrals. A point of discussion is that this will likely only increase with ongoing reductions in the burden of viral hepatitis.

**We agree with the reviewer. Therefore, we have added the following paragraph to our discussion, “Therefore, the CN-CCP identified 8.5% of our total NAFLD cohort as being at risk for advanced fibrosis and who required a liver specialist referral, and avoided hepatology referral in more than 90% of NAFLD patients that would otherwise have required assessment by hepatology before the pathway was implemented. A NAFLD pathway was successful to decrease the burden of low risk NAFLD referrals. After implementing the CN-CCP, NAFLD referrals dropped from 40% to 10% of all referrals to hepatology service. With the projected increase of NAFLD referrals due to increasing prevalence of diabetes and obesity in Canada, coupled with a and decreasing burden of viral hepatitis, (mainly HCV), a NAFLD pathway is needed to prioritize access to limited specialist resources within the health care system.”, page 15.**

4. Methods – Pathway development:

a. SWE cutoff of  $\geq 8.0$  kPa is a key point of uncertainty. Authors should note variation in cutoffs in elastography studies – example Table 6 (TE not SWE) in EASL paper <https://www.ncbi.nlm.nih.gov/pubmed/25911335>

i. Later discussion section notes cutoffs in other studies and Supplement table shows impact of different cutoff values in referral rates.

b. Lifestyle modification interventions may have limited long-term efficacy / sustainability (at the population level), and reinforces the need for other therapeutic options

**These are great points. As for the SWE cut-off of  $\geq 8.0$  kPa, we used this cut-off point for its high NPV to rule out advanced fibrosis. We have stated why we chose this cut-off on page 8. We have also reported the performance of different SWE cut-offs in Supplementary table 1. Again, we agree with the reviewer that the potential impact of lifestyle modification interventions may have limited long-term effects on this patient population, so there is significant need for more therapeutic options. Many recent publications have shown the beneficial effect of lifestyle modifications is limited, and that other therapeutic modalities are urgently needed for patients with advanced fibrosis. We did not focus on the latter points as the main focus of this paper was risk stratification and identifying NAFLD patients with possible advanced fibrosis.**

5. Discussion: Include reference for morbid obesity as cause of inconclusive SWE.

**We thank the reviewer for his comment. We have now included a reference (Kim DW et. al., 2019) to support this sentence in page 15.**