RECOMMENDED CLINICAL CARE PATHWAY (CCP) WITH FIB-4 UNDERESTIMATES THE PREVALENCE OF ADVANCED FIBROSIS (AF) COMPARED TO SEQUENTIAL CCP WITH LIVERFAST GP+ (LIVERSTAT) AND LIVER STIFFNESS MEASUREMENT (LSM) BY FIBROSCAN


BACKGROUND
- Clinical care pathways (CCPs) have been developed to assist clinicians in diagnosing NASH with advanced fibrosis (AF) using noninvasive sequential testing with FIB-4 followed by liver stiffness measurement (LSM) by Fibroscan and other proprietary algorithms.
- LiverSTAT (formerly LIVERFAST GP+) is a noninvasive blood-based Al triage test combining common biochemistry with anthropometrics for detecting NASH-related fibrosis and steatosis.
- LiverSTAT outperforms FIB-4, without limitations related to age or diabetes.

AIM
The study aims to assess comparatively, on the 2017-March 2020 pre-pandemic NHANES cohort, the prevalence of advanced fibrosis (AF) using recommended sequential FIB-4 and LSM and using the newly released triage tool, LiverSTAT, downstream of liver stiffness measurement (LSM) with vibration controlled transient elastography (VCTE) by Fibroscan.

MATERIALS & METHODS
- We extracted data (N=15,560 subjects) from National Health and Nutrition Examination Survey (NHANES) 2017-March -2020 pre-pandemic
- Selected subjects aged 18 years or more with missing data for FIB-4, LiverSTAT and LSM with applicable transient elastography (TE) were included (see below description of the methods)
- LiverSTAT: Subjects were assigned to one of the four diagnostic classes: Class D defines the presumed advanced fibrosis (AF).
- FIB-4: Cut-offs of 2.68 and 1.3 have been used for to assign subjects to AF category and to the indeterminate zone (IZ), respectively.
- LSM: Clinically significant fibrosis was assigned as per LSM≥8.0KPa.

The agreement between methods to identify AF have been estimated using recommend CCP (FIB-4 and LSM) and LiverSTAT in sequential combination with LSM.

RESULT

Strength of concordance between LSM (Fibroscan) and LiverSTAT for the detection of advanced fibrosis

CONCLUSION
- In NHANES pre-pandemic cohort, using the strength of concordance between LSM by Fibroscan and LiverSTAT instead of FIB-4, the prevalence of presumed advanced fibrosis was estimated as being twice higher than (2.5% vs. 1.2%, respectively).
- Among subjects with type 2 diabetes, the prevalence of presumed AF was 8.9% in the overall cohort.
- LiverSTAT can be used as a triage tool, along with confirmatory LSM, to better identify subjects for hepatologist referral.

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