



Anthony

66 | Male

Clinical Presentation

- Presents to PCP with moderate fatigue and malaise
- Patient gained 20 pounds over the last 12 months
- Uncontrolled Diabetic
- Currently taking Diovan HCT 320mg/25mg and Janumet 50/500mg
- Past medical history of hypertension, diabetes, and CKD stage 3
- No family history of medical problems
- BMI 40
- BP 160/90



I use LIVERFAST™ as a risk stratification tool in patients with possible non-alcoholic fatty liver disease. A pragmatic risk stratification approach is important to identify patients at risk of advanced fibrosis in a cost- effective fashion.

Dr Imtiaz Alam

Clinical Associate Professor of Medicine
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Before LIVERFAST™

Laboratory Results

- **Fasting blood glucose:** 260 mg/dl
- **Triglycerides:** 165 mg/dl
- **HDL:** 50 mg/dl
- **LDL:** 140 mg/dl
- **AST:** 65 U/L
- **ALT:** 70 U/L

Clinical Assessment

- Poorly controlled Diabetes Mellitus
- Morbid Obesity
- Hypertension
- Elevated Liver Function Tests

What to do next?

- Risk management of Diabetes Mellitus
- Hypertension management
- **Order LIVERFAST™**

"There should be a high index of suspicion for NAFLD and NASH in patients with type 2 diabetes" (Chalassani N et al. Hepatology 2018. AASLD CPG)

"In patients with type 2 diabetes, the presence of NAFLD should be looked for irrespective of liver enzyme levels, since type 2 diabetes patients are at high risk of disease progression " (Chalassani N et al. Hepatology 2018. AASLD CPG)

LIVERFAST™ Results

Fibrosis

0.61
F3
Significant Fibrosis

Activity

0.66
A3
Moderate Activity

Steatosis

0.80
S3
Severe Steatosis

After LIVERFAST™

Patient stratified as high risk of NASH or advanced fibrosis.

"Patients with steatosis identified by steatosis biomarkers and having metabolic medium/high risk (indicative of significant fibrosis or cirrhosis using fibrosis biomarkers), in the presence or not of abnormal liver enzymes should be referred to a specialist for in-depth assessment of disease severity, decision to perform liver biopsy, initiate monitoring/therapy." (EASL-EASD-EASO. J Hepatol 2016 CPG)

How It Works

- 1 Clinician orders **LIVERFAST™** for the patient
LIVERFAST Proprietary CPT Code 0166U
- 2 The patient has a fasting **simple blood test** of the 10 biomarkers
- 3 The lab provides **analyses** of the 10 biomarker results
- 4 The 10 biomarker results are input into Fibronostics **web portal**
- 5 LIVERFAST results are **available immediately**

FIBRONOSTICS

LIVERFAST™

Sample Result Sheet

PATIENT NAME: ANTHONY DATE OF BIRTH: GENDER: MALE HEIGHT: WEIGHT: BMI: 40

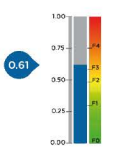
NAME OF PHYSICIAN: DATE OF TEST TAKEN:

BIOMARKER RESULTS

Sample Date	12-10-2019		
alpha-2-Macroglobulin	2.3 g/L	ALT	95 IU/L
Haptoglobin	0.19 g/L	AST	77 IU/L
Apolipoprotein A1	1.31 g/L	Fasting Glucose	11.3 mmol/L
Total Bilirubin	12.8 µmol/L	Total Cholesterol	4.4 mmol/L
GGT	40 IU/L	Triglycerides	2.5 mmol/L

SCORES

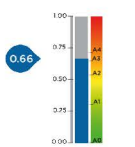
FIBROSIS



F3
Significant Fibrosis
0.61

FIBROSIS:
Liver fibrosis represents scarring of the liver. Scarring of the liver is due to reaction from viral infections, fat and/or alcohol.

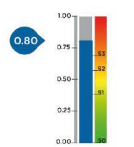
ACTIVITY



A3
Severe Activity
0.66

ACTIVITY:
Liver activity represents inflammation of the liver. Inflammation of the liver is due to reaction from viral infections, fat and/or alcohol.

STEATOSIS



S3
Severe Steatosis
0.8

STEATOSIS:
Liver steatosis is the accumulation of fat in the liver. Liver steatosis is commonly due to metabolic anomalies (e.g. Dyslipidemia, diabetes, overweight/obesity) and/or alcohol.

INTERPRETATION

- Your result for the SAF score is S3-A3-F3.
- This score indicates that you have steatohepatitis (NASH), severe inflammatory activity and significant fibrosis.
- Consult your physician for further evaluation.

PRECAUTIONS:

- The reliability of results is dependent on compliance with the preanalytical and analytical conditions recommended by Fibronostics.
- The test must be deferred for acute hemolysis, acute hepatitis, acute inflammation, extra hepatic cholestasis.
- The advice of a specialist must be sought for interpretation in chronic hemolysis and Gilbert's syndrome.
- The test interpretation is not validated for liver transplant patients.
- Isolated extreme values of any of the biomarker results should lead to caution in interpreting the results.
- In the case of discordance between a biopsy result and a test, it is recommended to seek the advice of a specialist.
- The causes of these discordances could be due to a flaw of the test or to a flaw in the biopsy. I.e. a liver biopsy has a 33% variability rate for one fibrosis stage.
- The fibrosis score is interpretable for chronic hepatitis B, chronic hepatitis C, alcoholic steatosis and non-alcoholic steatosis.
- The activity score is interpretable for chronic hepatitis B and chronic hepatitis C.

- ✓ Algorithm calculation
- ✓ Result available real time
- ✓ Confidential, secure and sent to physician
- ✓ Support for interpretation if needed