



Ronald

45 | Male

Clinical Presentation

- Presents to PCP with increased moderate fatigue and malaise
- No current medications
- No significant past medical history or family medical history
- BMI 30
- BP 125/70



A pragmatic risk stratification approach is important to identify diabetic patients at risk of advanced fibrosis in a cost-effective fashion. I recommend using LIVERFAST as a screening blood test by a primary care provider [PCP]

Dr Imtiaz Alam

*Clinical Associate Professor of Medicine
Texas A&M University*



Before LIVERFAST™

Laboratory Results

- **Fasting blood glucose:** 215mg/dl
- **HbA1c:** 9%
- **Triglycerides:** 125mg/dl
- **HDL:** 60mg/dl
- **LDL:** 100mg/dl
- **AST:** 19U/L

Clinical Assessment

- Newly diagnosed Diabetes Mellitus
- Does Ronald meet the criteria of Metabolic Syndrome?

What to do next?

- Treat for Diabetes Mellitus
- Risk management of metabolic syndrome
- **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

0.27
FO
No Fibrosis

Activity

0.41
A1
Minimal Activity

Steatosis

0.48
S1
Mild Steatosis

After LIVERFAST™

Patient stratified as low risk of NASH or advanced fibrosis. Monitor for new risk factors.

"To monitor disease severity in 'Low risk' patients (indicative of no/mild fibrosis) with NAFLD, a follow up every 2 years is indicated using Liver enzymes and fibrosis biomarkers" (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

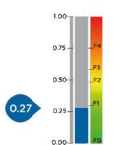
PATIENT NAME:	DATE OF BIRTH:	GENDER:	HEIGHT:	WEIGHT:	BMI:
RONALD	18-04-1974	MALE	5'9 in	203 lb	30
NAME OF PHYSICIAN: JASON CHIN KUET TZE			DATE OF TEST TAKEN: 07-11-2019		

BIOMARKER RESULTS

Sample Date	11-06-2019		
alpha-2-Macroglobulin	1.7 g/L	ALT	71 IU/L
Haptoglobin	0.53 g/L	AST	36 IU/L
Apolipoprotein A1	1.38 g/L	Fasting Glucose	5.1 mmol/L
Total Bilirubin	20 µmol/L	Total Cholesterol	5 mmol/L
GGT	30 IU/L	Triglycerides	1.5 mmol/L

SCORES

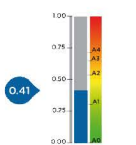
FIBROSIS



F0
No Fibrosis
0.27

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

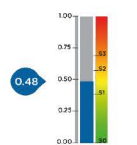
ACTIVITY



A1
Minimal Activity
0.41

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

STEATOSIS



S1
Minimal Steatosis
0.48

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 S1-A1-F0.
- This score indicates that you have minimal steatosis, minimal inflammatory activity and no fibrosis.
- Consult your physician for further evaluation.

PRECAUTIONS:

- The reliability of results is dependent on compliance with the pre-analytical 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 hist 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