A Different Approach to Treating Liver Disease Patients

**Background**

**Pre-cirrhotic non-alcoholic fatty liver disease**
- Associated with poor dietary habits
- Biomarkers include triglyceride/glucose levels

**Pre-cirrhotic alcohol-related liver disease**
- Attributed to excessive drinking without restraint
- Biomarkers include PEth and liver enzyme levels (ALT and AST)

**Current Problems**

Liver disease currently accounts for:
- Approximately 3.5% of deaths worldwide

Physicians struggle to monitor patient’s progress on a daily basis, as:
- Blood tests are administered only 3 times a year
- Patient adherence to lifestyle recommendations remains under 50%

**Pre-cirrhotic NAFLD Management**

**Test Kits Designed for Patients:**
The PTS Diagnostics TG Test Trips utilize lancets to provide triglyceride levels to the patient in under 5 minutes. Dexcom’s G6 CGM System is a small sensor that’s placed under the skin to enable continuous glucose monitoring. Both methods yield an imprecision under 10%, thus proving reliable.

**Benefits of Dietician:**
Patients with access to a dietician had a:
- 0% mortality rate after one year (control patients had a 20% mortality rate)

**Pre-cirrhotic ARLD Management**

**Test Kits Designed for Patients:**
PEth test kits use lancets to obtain whole blood levels and are referenced as a direct biomarker of alcohol consumption. Self Diagnostics Liver Screen Home Test Kits detect ALT/AST concentrations over 80 IU/L through incorporating test strips. Both tests have accuracy rates above 90%.

**Benefits of Counseling:**
Drinkers are:
- Twice as likely as control patients to reduce drinking 6 months after counseling

**Conclusion**

Liver disease treatment should follow a two step process. First, point of care testing should be implemented:
- Represents a reliable method of obtaining daily biomarker levels
- Eliminates the need for blood tests

Additionally, incorporating either a dietician or a counselor has been shown to promote health and wellness:
- Allows for more personalized care for the patient

**References**


Western diets are associated increase the risk of being diagnosed with NAFLD

[https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5575379/#po=52.7778](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5575379/#po=52.7778)

Alcohol consumption increases inflammatory responses in liver

[https://gut.bmj.com/content/early/2020/03/26/gutjnl-2019-320446](https://gut.bmj.com/content/early/2020/03/26/gutjnl-2019-320446)