**Assessing Cognitive Status of Patients with Advanced Liver Disease**

Hepatic Encephalopathy (HE) is a complication associated with advanced forms of liver disease and can cause problems for neuropsychiatric functioning. HE is on a severity spectrum and the symptoms vary greatly depending on how severe the condition is. There are several psychiatric tests that can be used to test for the early stages of HE (covert HE). These tests can include the Psychometric Hepatic Encephalopathy Score (PHES), Inhibitory Control Test (ICT), and Stroop test. However, diagnosis of HE doesn’t usually occur until the symptoms have become more detrimental because the covert HE symptoms can be very subtle (e.g. irritability or impaired sleep). Early diagnosis of HE can lead to more awareness about a patient’s condition and the ability to create a more effective treatment plan. Using tools like FitBit and BiAffect to monitor a patient’s interactions with technology, a “digital phenotype” can be created and it is possible to gain a better understanding of these early stage HE symptoms. If it is possible to identify covert HE by monitoring patient technology usage along with a patient’s physical condition, it would be an extremely efficient and useful diagnostic tool, especially since it can occur outside of a clinical setting.