

Diagnostic Tools

EncephalApp



Using EncephalApp-Stroop

- EncephalApp-Stroop is a high-sensitivity test to screen for covert HE and meets the need for a brief screening tool for covert HE that does not require psychological expertise in administration and interpretation.
- Stroop tasks have been used for a long time to evaluate psychomotor speed and cognitive flexibility. They are now available as a new Smartphone app that is available on iTunes.
- The most recent of these, the EncephalApp-Stroop app, is free to download. The age-based cut-offs for EncephalApp-Stroop are highly sensitive for covert HE screening and could be used to guide future dedicated testing in cirrhosis. The app has good discriminative validity and good test-retest reliability. It is easy to perform and administer (being patient-controlled) and within 5 min is able to give >88% sensitivity for the diagnosis of MHE and cognitive dysfunction in cirrhosis.¹
- <https://encephalapp.com/>

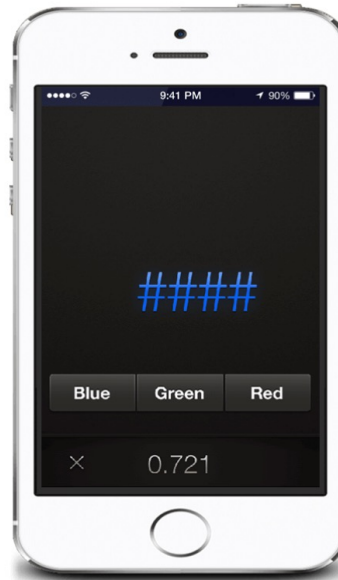


EncephalApp-Stroop features and functionality¹



EncephalApp is a series of applications designed to evaluate patients with liver disease; the first of which is a Stroop task. It has neutral and incongruent stimuli only.

Stroop “Off” state No words, just symbols



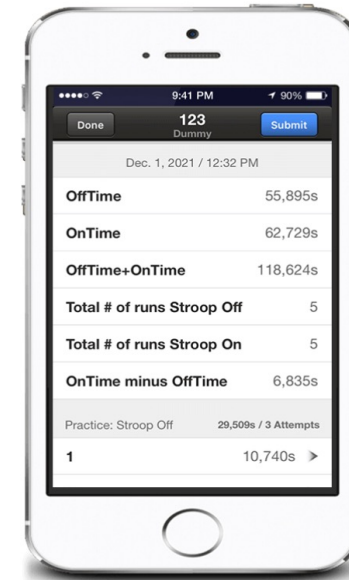
The task is to correctly and rapidly press the colour corresponding to the colour of the symbols presented.

Stroop “On” state Words in discordant colours



The task is to correctly and rapidly press the colour corresponding to the colour of the word presented, not the colour it means.

Stroop outputs



- Each run has 10 stimuli
- One mistake stops it
- 5 complete runs in off and on state are needed
- Outputs in “on” and “off” state:
 1. Number of runs needed to achieve 5 correct runs
 2. Time needed to complete those 5 correct runs