

# Executive Cognitive Functions in Patients with Alcohol Use Disorder

## A Pilot Study at Centro Hospitalar Psiquiátrico de Lisboa

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### Objectives

Evaluation of executive function impairments in patients with Alcohol Use Disorder (AUD).

### Background and Aims

Alcohol dependence is a chronic disorder, accompanied by neuropsychological deficits. Promising models for cognitive rehabilitation in alcohol treatment rest on a better understanding of the associated impairments in the multifaceted domains of executive functioning and impulsivity. Impulsivity has become recognized as a key contributor to several critical phases of drug abuses and to AUD in particular.

### Material and Methods

The study included patients (n=9) from Serviço Alcoologia e Novas Dependências, at Centro Hospitalar Psiquiátrico de Lisboa by convenient sampling. Executive function were tested by applying the Frontal Assessment Battery (FAB) and UPPS-P Impulsive Behaviour Scale. Non-systematic review of the literature regarding impulsivity problems in patients with AUD was performed in PubMed database.)

### Results

**9 Patients** (7 males, 2 females)  
Mean age **60.3 years old**  
Diagnosed with AUD  
Cognitive impairment complaints

FAB was applied as a screening tool  
→ **8 patients** scored < 15  
(meaning executive function impairment)

Subtest Go-No-Go showed  
impairment in **5 patients**.  
We performed additional assessment  
concerning impulsivity

#### Impulsivity assesment using UPPS-P Impulsive Behavior Scale

(Urgency, Premeditation (lack of), Perseverance (lack of), Sensation Seeking, Positive Urgency)



Scored in **Negative Urgency**: tendency to act rashly under extreme negative emotions



Scored in **Lack of Premeditation**: tendency to act without thinking



Scored in **Lack of Perseverance**: inability to remain focused on a task



Scored in **Sensation Seeking**: tendency to seek out novel and thrilling experiences



Scored in **Positive Urgency**: tendency to act rashly under extreme positive emotions

### Conclusion

Our data suggest that executive dysfunction is prevalent among patients with alcohol use disorder. Hence, routine neuropsychological assessment is of particular importance for early detection.

Concerning impulsivity (UPPS-P), the main domains affected in our convenience sample were negative urgency (n=4) and positive urgency (n=3). **Neurocognitive indices of impulsivity represent a major aspect in executive dysfunction, since they may be more sensitive to the prediction of alcohol relapse.**