# **APATHY DIAGNOSTIC CRITERIA 2018**

CRITERION A	Yes	No
A quantitative reduction of goal-directed activity either in behavioral, cognitive, emotional or social dimensions in comparison to the patient's previous level of functioning in these areas. These changes may be reported by the patient himself/ herself or by observation of others.		

## **CRITERION B**

Yes	No
	Yes

B2. EMOTION Loss of, or diminished emotion as evidenced by at least one of the following:	Yes	No
<b>Spontaneous emotions:</b> the patient shows less spontaneous (self-generated) emotions regarding their own affairs, or appears less interested in events that should matter to him/her or to people that he/she knows well.		
<b>Emotional reactions to environment:</b> He/she expresses less emotional reaction in response to positive or negative events in his/her environment that affect him/her or people he/she knows well (e.g., when things go well or bad, responding to jokes, or events on a TV program or a movie, or when disturbed or prompted to do things he/ she would prefer not to do).		
<b>Impact on others:</b> He/she is less concerned about the impact of his/her actions or feelings on the people around him/her.		
<b>Empathy:</b> He/she shows less empathy to the emotions or feelings of others (e.g., becoming happy or sad when someone is happy or sad, or being moved when others need help).		
<b>Verbal or physical expressions:</b> He/she shows less verbal or physical reactions that reveal his/her emotional states.		

B3. SOCIAL INTERACTION Loss of or diminished, engagement in social interaction as evidenced by at least one of the following:	Yes	No
<b>Spontaneous social initiative:</b> the patient takes less initiative in spontaneously proposing social or leisure activities to family or others.		
<b>Environmentally stimulated social interaction:</b> He/she participates less, or is less comfortable or more indifferent to social or leisure activities suggested by people around him/her.		
<b>Relationship with family members:</b> He/she shows less interest in family members (e.g., to know what is happening to them, to meet them or make arrangements to contact them).		
<b>Verbal interaction:</b> He/she is less likely to initiate a conversation, or he/she withdraws soon from it.		
Homebound: He / She prefer to stays at home more frequently or longer than usual and shows less interest in getting out to meet people		

CRITERION B	Yes	No
The presence of at least 2 of the 3 dimensions (B1, B2, B3) for a period of at least four weeks and present most of the time		

CRITERION C	Yes	No	l
These symptoms (A - B) cause clinically significant impairment in personal, social, occupational, or other important areas of functioning.			

CRITERION D	Yes	No
The symptoms (A - B) are not exclusively explained or due to physical disabilities (e.g. blindness and loss of hearing), to motor disabilities, to a diminished level of consciousness, to the direct physiological effects of a substance (e.g. drug of abuse, medication), or to major changes in the patient's environment.		

APATHY DIAGNOSIS	Yes	No
Positive if criteria A, B, C and D are present.		

### **APPENDIX**

#### **Definition:**

Goal-directed behaviour/ activity: behaviour aimed toward a goal or toward completion of a task Presumed underlying pathophysiological mechanisms: Apathy is the clinical consequence of various underlying dysfunctions of mental and biological processes required to elaborate, initiate and control intentional/goal-directed behaviour.

## How to assess apathy

## Interviews for caregiver

AES-I, NPI, IAS, FrSBe, IA, DAIR, KBCI, LARSi, DAS, APADEM-NH **Self report index** 

AES-S, The Behavioural Assessment of Dysexecutive Syndrome, FrSBe, EDA, NPI-C. AMI

#### Clinician's scales

BPRS, PANSS, SANS, AES-C, UPDRS, The Behavioural Assessment of Dysexecutive Syndrome, IAS, FrSBe, IA, DAIR, LARS, sfLARS, NPI-C

Cautions: Due to anosognosia, take with caution patient's report. Select a good caregiver; take into account spouse's biases etc. It is possible in parallel to use other types of scales / assessment tools (eg for depression, anxiety, fatigue..)

## Information and Communication technologies (ICT)

There is evidence that apart from the currently used assessment methods for apathy, new ICT approaches could provide clinicians with valuable additional information for detection and therefore more accurate diagnosis of apathy. Actigraphy and methods used to monitor motor activity and rest-activity rhythms had already demonstrated to be accurate and related to apathy. Other methodologies (voice analysis, video analysis, use of serious games) already are used but only at the moment in research setting.

Caution: Such technologies must be used and interpreted with caution in patients with movement disorders (Parkinson's disease, Huntington's disease, progressive supranuclear palsy,...). These patients often have reduced total activity, in relation with their motor symptoms. In the same way, they speak slowly, with an hypophonic voice, have a low speech rate due to speech and respiratory disorders. They also have an hypomimic face that can give the impression they do not react to emotion while it is not really the case. Hence, the proposed measures need to be used with reservations. What is needed for pharmacological clinical trials - To provide the scientific rational (biological basis) for targeting specific dimensions; - To provide the relation with the product intended for development (mechanism of action); To provide justification for the choice of endpoint.