

Appendix 1: Clinical assessment

Tinetti test is a reliable and effective tool to evaluate the fall risk of PD patients (42). This assessment consists of two parts, of which 1–9 items are used to evaluate balance ability and 10–16 items are taken to assess gait ability, with a total score of 28 points. The criteria for predicting falling risk are as follows: low fall risk [25–28]; medium fall risk [19–25]; high fall risk (<19).

The Hamilton Anxiety Rating Scale (HAMA) is one of the rating scales to measure the severity of perceived anxiety symptoms. It consists of 14 symptom-defined elements, and each item is scored on a basic numeric scoring of 0 (not present) to 4 (severe) (43): no/minimal anxiety (scores ≤ 7); mild anxiety [8–14]; moderate anxiety [15–23]; severe anxiety (≥ 24).

The total score of Hamilton Depression Rating Scale with 24 items (HAMD-24) is 78. Criteria for rating severity of depression are as follows (44,45): no depression [0–7]; mild depression [8–19]; moderate depression [20–34]; and severe depression (≥ 35).

Mini-Mental State Examination (MMSE) is a simplified cognitive mental status examination, maximum total score of which is 30. Education level is a cardinal demographic factor affecting MMSE score, so the best cut-off point of normal and abnormal cognitive status is determined according to education (46): for illiterate individuals is 17, for individuals with 1–6 years of education is 20, and for individuals with 7 or more years of education is 24. Below the threshold is cognitive impairment, and above is normal.

Frontal Assessment Battery (FAB) consists of 6 items, each with a score of 0–3. The total score ≤ 12 is defined as significant cognitive impairment (47).

Epworth Sleepiness Scale (ESS) is a brief self-rating scale that can be used to assess daytime sleepiness of PD patients (48). The possibilities of patients dozing off or falling asleep in eight situations are evaluated with a score of 0–3, and the maximum score is 24 points. The score > 10 is taken to indicate excessive daytime sleepiness (48,49).

Fatigue severity scale (FSS), a self-questionnaire

composed of 9 items, has been widely used to measure fatigue of PD patients. Patients are asked to choose a number from 1 to 7 that indicates their degree of agreement with each statement where 1 indicates strongly disagree and 7, strongly agree. The total score > 36 is adopted to indicate the presence of fatigue symptoms (24).

References

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