Data Collection Worksheet

Please Note: The Data Collection Worksheet (DCW) is a tool to aid investigators to integrate the collection of PhenX measures in your study. The PhenX measures that you selected and added to your Cart are presented in the DCW in alphabetical order. The DCW includes worksheets for data collection. Variables derived from the collected data are shown in the Data Dictionary (DD) with variable names and unique PhenX variable identifiers. The collection of DCWs produced by the Toolkit is not designed as a data collection instrument. Each investigator will decide how to integrate PhenX measures into data collection for their study.

Washington Heights-Inwood Genetic Study of Essential Tremor (WHIGET) Tremor Rating Scale protocol for Videotaped Examination

While subject is seated:

1. Hands resting in lap for 15 s
2. Arms held at 90° for 15 s (arm sustentation)
3. Arms held in wing position for 15 s
4. Pouring water from one cup to another (cups should be standard size and at least three quarters filled; 8 transfers)
5. Bring a spoon of water from lap level up to mouth and back again; repeat 7 additional times
6. Drinking water from a full glass; repeat 7 times with each hand
7. Finger-nose-finger on right 8 times
8. Finger-nose-finger on left 8 times
9. Open and close right hand 10 times
10. Open and close left hand 10 times
11. Alternatively pronate and supinate right hand 10 times
12. Alternatively pronate and supinate left hand 10 times
13. Tap right foot 10 times
14. Tap left foot 10 times
15. Jaw at rest for 5 s
16. Mouth open for 5 s
17. Sustained phonation: first "AAA" for 10 s, then "EEE"
18. Head while patient is seated for 10 s
19. The examiner will test the passive tone of each arm and leg and comment on this on the videotape
20. Drawing 2 Archimedes spirals with each hand (subject should make at least 6 full circular motions)

While subject is standing:

21. Hands hanging at sides for 10 s; videotape legs too
22. Walking 20 ft and turning
23. Tandem gait for 10 steps

Scoring Instructions
**Criteria for ET:**

1. On examination, a +2 postural tremor of at least 1 arm (a head tremor may also be present, but is insufficient for the diagnosis)

2. On examination, there must be
   
a. a +2 kinetic tremor during at least 4 tasks or
   
b. a +2 kinetic tremor on 1 task and a +3 kinetic tremor on a second task; tasks include: pouring water, using a spoon to drink water, drinking water, finger-to-nose, and drawing a spiral

3. If on examination the tremor is present in the dominant hand, then by report it must interfere with at least 1 activity of daily living (eating, drinking, writing, use of hands); if on examination, the tremor is not present in the dominant hand, this criterion is irrelevant.

4. Medications, hyperthyroidism, alcohol, or dystonia are not potential etiologic factors

5. Not psychogenic (bizarre features, inconsistent in character, changing, subject is distractable, other psychiatric features on examination)

**Criteria for probable ET (1 and 3-5 must be true; also, either 2a or 2b must be true):**

1. On examination, a +2 postural tremor of arms may or may not be present

2. (a) Same as 2 above
   
(b) Head tremor is present on examination

3. Tremor in the dominant hand may or may not interfere with at least 1 daily activity

4. Medications, hyperthyroidism, dystonia, or alcohol are not potential etiologic factors

5. Not psychogenic

**Criteria for possible ET:**

1. On examination, a +2 kinetic tremor must be present on 3 tasks

2. No other stipulations

**Tremor Ratings (0 to +3):**

0 = no visible tremor

+1 = low-amplitude/barely perceivable tremor or intermittent tremor
+2 = tremor is of moderate amplitude (1-2 cm) and usually present; it is clearly oscillatory

+3 = large-amplitude (>2 cm), violent, jerky tremor resulting in difficulty completing the task due to spilling or inability to hold a pen to paper

*Note from the Neurology Working Group: Please see Louis et al. (2001) for discussion on the addition of a tremor rating of 4.*

**While subject is seated:**

1. Hands resting in lap for 15 s
   - 0 [ ] no visible tremor
   - 1 [ ] low-amplitude/barely perceivable tremor or intermittent tremor
   - 2 [ ] tremor is of moderate amplitude (1-2 cm) and usually present; it is clearly oscillatory
   - 3 [ ] large-amplitude (>2 cm), violent, jerky tremor resulting in difficulty completing the task due to spilling or inability to hold a pen to paper

2. Arms held at 90° for 15 s (arm sustention)
   - 0 [ ] no visible tremor
   - 1 [ ] low-amplitude/barely perceivable tremor or intermittent tremor
   - 2 [ ] tremor is of moderate amplitude (1-2 cm) and usually present; it is clearly oscillatory
   - 3 [ ] large-amplitude (>2 cm), violent, jerky tremor resulting in difficulty completing the task due to spilling or inability to hold a pen to paper

3. Arms held in wing position for 15 s
   - 0 [ ] no visible tremor
   - 1 [ ] low-amplitude/barely perceivable tremor or intermittent tremor
   - 2 [ ] tremor is of moderate amplitude (1-2 cm) and usually present; it is clearly oscillatory
   - 3 [ ] large-amplitude (>2 cm), violent, jerky tremor resulting in difficulty completing the task due to spilling or inability to hold a pen to paper
4. Pouring water from one cup to another (cups should be standard size and at least three quarters filled; 8 transfers)

0 [ ] no visible tremor

1 [ ] low-amplitude/barely perceivable tremor or intermittent tremor

2 [ ] tremor is of moderate amplitude (1-2 cm) and usually present; it is clearly oscillatory

3 [ ] large-amplitude (>2 cm), violent, jerky tremor resulting in difficulty completing the task due to spilling or inability to hold a pen to paper

5. Bring a spoon of water from lap level up to mouth and back again; repeat 7 additional times

0 [ ] no visible tremor

1 [ ] low-amplitude/barely perceivable tremor or intermittent tremor

2 [ ] tremor is of moderate amplitude (1-2 cm) and usually present; it is clearly oscillatory

3 [ ] large-amplitude (>2 cm), violent, jerky tremor resulting in difficulty completing the task due to spilling or inability to hold a pen to paper

6. Drinking water from a full glass; repeat 7 times with each hand

0 [ ] no visible tremor

1 [ ] low-amplitude/barely perceivable tremor or intermittent tremor

2 [ ] tremor is of moderate amplitude (1-2 cm) and usually present; it is clearly oscillatory

3 [ ] large-amplitude (>2 cm), violent, jerky tremor resulting in difficulty completing the task due to spilling or inability to hold a pen to paper

7. Finger-nose-finger on right 8 times

0 [ ] no visible tremor

1 [ ] low-amplitude/barely perceivable tremor or intermittent tremor

2 [ ] tremor is of moderate amplitude (1-2 cm) and usually present; it is clearly oscillatory

3 [ ] large-amplitude (>2 cm), violent, jerky tremor resulting in difficulty completing the task due to spilling or inability to hold a pen to paper
8. Finger-nose-finger on left 8 times

0 [ ] no visible tremor

1 [ ] low-amplitude/barely perceivable tremor or intermittent tremor

2 [ ] tremor is of moderate amplitude (1-2 cm) and usually present; it is clearly oscillatory

3 [ ] large-amplitude (>2 cm), violent, jerky tremor resulting in difficulty completing the task due to spilling or inability to hold a pen to paper

9. Open and close right hand 10 times

0 [ ] no visible tremor

1 [ ] low-amplitude/barely perceivable tremor or intermittent tremor

2 [ ] tremor is of moderate amplitude (1-2 cm) and usually present; it is clearly oscillatory

3 [ ] large-amplitude (>2 cm), violent, jerky tremor resulting in difficulty completing the task due to spilling or inability to hold a pen to paper

10. Open and close left hand 10 times

0 [ ] no visible tremor

1 [ ] low-amplitude/barely perceivable tremor or intermittent tremor

2 [ ] tremor is of moderate amplitude (1-2 cm) and usually present; it is clearly oscillatory

3 [ ] large-amplitude (>2 cm), violent, jerky tremor resulting in difficulty completing the task due to spilling or inability to hold a pen to paper

11. Alternatively pronate and supinate right hand 10 times

0 [ ] no visible tremor

1 [ ] low-amplitude/barely perceivable tremor or intermittent tremor

2 [ ] tremor is of moderate amplitude (1-2 cm) and usually present; it is clearly oscillatory
3 [ ] large-amplitude (>2 cm), violent, jerky tremor resulting in difficulty completing the task due to spilling or inability to hold a pen to paper

12. Alternatively pronate and supinate left hand 10 times

0 [ ] no visible tremor
1 [ ] low-amplitude/barely perceivable tremor or intermittent tremor
2 [ ] tremor is of moderate amplitude (1-2 cm) and usually present; it is clearly oscillatory
3 [ ] large-amplitude (>2 cm), violent, jerky tremor resulting in difficulty completing the task due to spilling or inability to hold a pen to paper

13. Tap right foot 10 times

0 [ ] no visible tremor
1 [ ] low-amplitude/barely perceivable tremor or intermittent tremor
2 [ ] tremor is of moderate amplitude (1-2 cm) and usually present; it is clearly oscillatory
3 [ ] large-amplitude (>2 cm), violent, jerky tremor resulting in difficulty completing the task due to spilling or inability to hold a pen to paper

14. Tap left foot 10 times

0 [ ] no visible tremor
1 [ ] low-amplitude/barely perceivable tremor or intermittent tremor
2 [ ] tremor is of moderate amplitude (1-2 cm) and usually present; it is clearly oscillatory
3 [ ] large-amplitude (>2 cm), violent, jerky tremor resulting in difficulty completing the task due to spilling or inability to hold a pen to paper

15. Jaw at rest for 5 s

0 [ ] no visible tremor
1 [ ] low-amplitude/barely perceivable tremor or intermittent tremor
2 [ ] tremor is of moderate amplitude (1-2 cm) and usually present; it is clearly oscillatory

3 [ ] large-amplitude (>2 cm), violent, jerky tremor resulting in difficulty completing the task due to spilling or inability to hold a pen to paper

16. Mouth open for 5 s

0 [ ] no visible tremor

1 [ ] low-amplitude/barely perceivable tremor or intermittent tremor

2 [ ] tremor is of moderate amplitude (1-2 cm) and usually present; it is clearly oscillatory

3 [ ] large-amplitude (>2 cm), violent, jerky tremor resulting in difficulty completing the task due to spilling or inability to hold a pen to paper

17. Sustained phonation: first “AAA” for 10 s, then “EEE”

0 [ ] no visible tremor

1 [ ] low-amplitude/barely perceivable tremor or intermittent tremor

2 [ ] tremor is of moderate amplitude (1-2 cm) and usually present; it is clearly oscillatory

3 [ ] large-amplitude (>2 cm), violent, jerky tremor resulting in difficulty completing the task due to spilling or inability to hold a pen to paper

18. Head while patient is seated for 10 s

0 [ ] no visible tremor

1 [ ] low-amplitude/barely perceivable tremor or intermittent tremor

2 [ ] tremor is of moderate amplitude (1-2 cm) and usually present; it is clearly oscillatory

3 [ ] large-amplitude (>2 cm), violent, jerky tremor resulting in difficulty completing the task due to spilling or inability to hold a pen to paper

19. The examiner will test the passive tone of each arm and leg and comment on this on the videotape:

Comments:________________________________________________________
20. Drawing 2 Archimedes spirals with each hand (subject should make at least 6 full circular motions)

   0 [ ] no visible tremor
   1 [ ] low-amplitude/barely perceivable tremor or intermittent tremor
   2 [ ] tremor is of moderate amplitude (1-2 cm) and usually present; it is clearly oscillatory
   3 [ ] large-amplitude (>2 cm), violent, jerky tremor resulting in difficulty completing the task due to spilling or inability to hold a pen to paper

While subject is standing:

21. Hands hanging at sides for 10 s; videotape legs too

   Comments:________________________________________________________
   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________

22. Walking 20 ft and turning

   Comments:________________________________________________________
   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________

23. Tandem gait for 10 steps

   Comments:________________________________________________________
24. Dominant Hand

[ ] Right

[ ] Left

Protocol source: https://www.phenxtoolkit.org/protocols/view/131301#Source