

# University of Nebraska, Duke University UCD-SNOMEDCT

## Review of Tremor Concepts and Diagnoses

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Rima supplied three sets of tremor descriptions from which to query concept FSNs and associated participant diagnoses in the project data. Following are the results of querying these descriptions.

### Description set 1

Table 1 contains description text as supplied. Unique leading portions of descriptions were used to identify whether corresponding FSNs exist in the data, their status, and the number of participants with corresponding diagnoses (using the P\_SCT relationship). Table 2 shows the results of querying concepts contained in table 1. Note that participant counts represent the number of participants with a direct relationship to a concept, whereas the graph app generally counts participants having a relationship with any concept in a path leading to a concept of interest. Using the app method would likely increase participant counts in table 2. Selecting two concepts for examination, we see that *Essential tremor (finding)* has an active status of 0 in the project data, which explains why the graph app does not generate a diagram for it. The inactive status of this concept was confirmed using the SNOMEDCT browser and search string “essential tremor.” Figure 1 is a screen-shot of the resulting browser query, where *Essential tremor (finding)* appears in red, indicating an inactive status. Examining the concept *Fine tremor (finding)*, using the current version of SNOMEDCT, reveals the path *Clinical finding (finding)*, *Finding of movement (finding)*, *Involuntary movement (finding)*, *Tremor (finding)*. Figure 2 is a screen-shot of this browser hierarchy. Using the project data, limited to active relationships, *Fine tremor (finding)* is found uniquely in the path *Clinical finding (finding)*, *Clinical history and observation findings (finding)*, *Finding of movement (finding)*, *Involuntary movement (finding)*, *Tremor (finding)*. The existence of this path was independently verified using the 2017-07-31 SNOMEDCT release data. Figure 3 shows the graph for this concept related to the interaction of Dx and HA, limited to ALD and ASD. Several alternate paths leading to *Fine tremor (finding)* were identified in the project data, but none with active relationships in the associated hierarchies. No path, active or inactive, exists in the project data that relates *Clinical finding (finding)* to *Finding of movement (finding)*, which is the official path in the current release of SNOMEDCT. The team should consider updating relationships in the project data to agree with those in the current SNOMEDCT release. Otherwise, the SNOMEDCT browser is of limited use in defining paths to be used for querying project participant data.

Table 1: Tremor FSN description set 1

Description
[X]Other specified forms of tremor (finding) code:194473001 43.8 [SNOMED CT]
Benign familial tremor (finding) code:192840004 98.4 [SNOMED CT]
Dissociative tremor (disorder) code:191713008 62.5 [SNOMED CT]
Dysarthria (finding) code:8011004 100.0 [SNOMED CT]
Essential tremor (disorder) code:609558009 100.0 [SNOMED CT]
Essential tremor (disorder) code:609558009 20.4 [SNOMED CT]
Essential tremor (disorder) code:609558009 35.1 [SNOMED CT]
Essential tremor (finding) code:192839001 100.0 [SNOMED CT]
Essential tremor (finding) code:192839001 26.0 [SNOMED CT]
Essential tremor (finding) code:192839001 62.5 [SNOMED CT]
Fine tremor (finding) code:42800007 100.0 [SNOMED CT]
Fine tremor (finding) code:42800007 100.0 [SNOMED CT]
Fine tremor (finding) code:42800007 39.8 [SNOMED CT]

Table 1: Tremor FSN description set 1

Description
Finger-finger test abnormal (finding) code:250064001 33.2 [SNOMED CT]
Finger-nose test abnormal (finding) code:250063007 100.0 [SNOMED CT]
Finger jerk finding (finding) code:366462001 27.6 [SNOMED CT]
Intention tremor (finding) code:30721006 100.0 [SNOMED CT]
Intention tremor (finding) code:30721006 53.6 [SNOMED CT]
Intention tremor (finding) code:30721006 59.8 [SNOMED CT]
Intention tremor (finding) code:30721006 61.5 [SNOMED CT]
Intention tremor (finding) code:30721006 62.5 [SNOMED CT]
Intermittent tremor (finding) code:36637003 53.6 [SNOMED CT]
Intermittent tremor (finding) code:36637003 62.5 [SNOMED CT]
Isolated facial tremor (finding) code:230340001 100.0 [SNOMED CT]
Isolated head tremor (finding) code:230339003 35.2 [SNOMED CT]
Muscle twitch (finding) code:60238002 100.0 [SNOMED CT]
On examination - coarse tremor - flapping (finding) code:163668002 80.0 [SNOMED CT]
On examination - fine tremor (finding) code:163667007 20.8 [SNOMED CT]
On examination - fine tremor (finding) code:163667007 80.0 [SNOMED CT]
On examination - intention tremor (finding) code:163669005 75.3 [SNOMED CT]
On examination - intention tremor (finding) code:163669005 77.1 [SNOMED CT]
On examination - intention tremor (finding) code:163669005 79.5 [SNOMED CT]
On examination - intention tremor (finding) code:163669005 80.0 [SNOMED CT]
On examination - tremor outstretched hands (finding) code:417418002 100.0 [SNOMED CT]
On examination - tremor outstretched hands (finding) code:417418002 100.0 [SNOMED CT]
On examination - tremor outstretched hands (finding) code:417418002 12.7 [SNOMED CT]
On examination - tremor outstretched hands (finding) code:417418002 14.4 [SNOMED CT]
Repetitive rocking movements (finding) code:30189004 10.5 [SNOMED CT]
Resting tremor (finding) code:25082004 [SNOMED CT]
Resting tremor (finding) code:25082004 100.0 [SNOMED CT]
Resting tremor (finding) code:25082004 62.5 [SNOMED CT]
Resting tremor (finding) code:25082004Version: 2011.07.11AA Release Date: 2011-09-02 11:17:31.0 [SNOMED CT]
Tremor (finding) code:26079004 68.8 [SNOMED CT]
Tremor (finding) code:26079004 76.0 [SNOMED CT]
Tremor (finding) code:26079004 76.3 [SNOMED CT]
Tremor (finding) code:26079004 100.0 [SNOMED CT]
Tremor (finding) code:26079004 20.7 [SNOMED CT]
Tremor (finding) code:26079004 20.8 [SNOMED CT]
Tremor (finding) code:26079004 50.9 [SNOMED CT]
Tremor (finding) code:26079004 56.6 [SNOMED CT]
Tremor (finding) code:26079004 57.8 [SNOMED CT]
Tremor (finding) code:26079004 66.6 [SNOMED CT]
Tremor (finding) code:26079004 67.3 [SNOMED CT]
Tremor (finding) code:26079004 67.5 [SNOMED CT]
Tremor (finding) code:26079004 68.0 [SNOMED CT]
Tremor (finding) code:26079004 68.5 [SNOMED CT]
Tremor (finding) code:26079004 75.7 [SNOMED CT]
Tremor (finding) code:26079004 76.3 [SNOMED CT]
Tremor (finding) code:26079004 85.8 [SNOMED CT]
Tremor (finding) code:26079004 87.0 [SNOMED CT]
Tremor (finding) code:26079004Version: 2009.07.9AA Release Date: 2009-09-03 02:06:24.0 [SNOMED CT]
Tremor (finding) code:26079004Version: 2011.07.11AA Release Date: 2011-09-02 11:17:31.0 [SNOMED CT]

Table 2: Query results for FSN description set 1

Description	SCT ID	Active	n-participants
[x]other specified forms of tremor (finding)	NA	NA	0
benign familial tremor (finding)	192840004	0	1
dissociative tremor (disorder)	191713008	1	2
dysarthria (finding)	229685007	1	0
essential tremor (disorder)	632009	0	0
essential tremor (finding)	192839001	0	2
fine tremor (finding)	42800007	1	7
finger-finger test abnormal (finding)	250064001	1	0
finger-nose test abnormal (finding)	250063007	1	14
finger jerk finding (finding)	366462001	1	1
intention tremor (finding)	140873002	0	0
intermittent tremor (finding)	36637003	1	2
isolated facial tremor (finding)	230340001	1	1
isolated head tremor (finding)	230339003	1	1
muscle twitch (finding)	60238002	1	6
on examination - coarse tremor - flapping (finding)	163668002	1	1
on examination - fine tremor (finding)	163667007	1	5
on examination - intention tremor (finding)	163669005	1	5
on examination - tremor outstretched hands (finding)	417418002	1	12
repetitive rocking movements (finding)	30189004	1	2
resting tremor (finding)	25082004	1	12
tremor (finding)	308909003	1	0

The screenshot displays the SNOMED CT Browser interface. On the left, the 'Search' tab is active, showing a search bar with 'essential tremor' and a list of 29 matches. The results are filtered by 'essential tremor' and 'essential tremor (finding)'. The right panel shows 'Concept Details' for 'Essential tremor (finding)' (SCTD: 192839001), including its parents (No parents) and children (0).

Figure 1: SNOMEDCT browser results for “essential tremor”

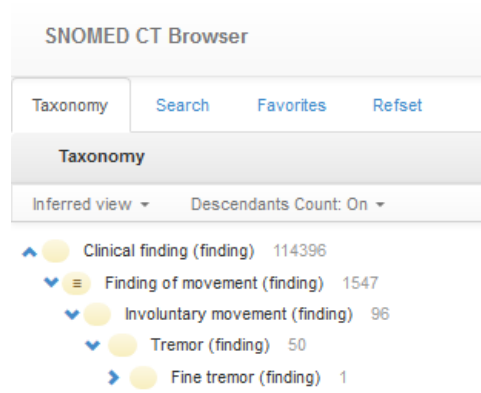


Figure 2: SNOMEDCT browser hierarchy for “fine tremor (finding)”

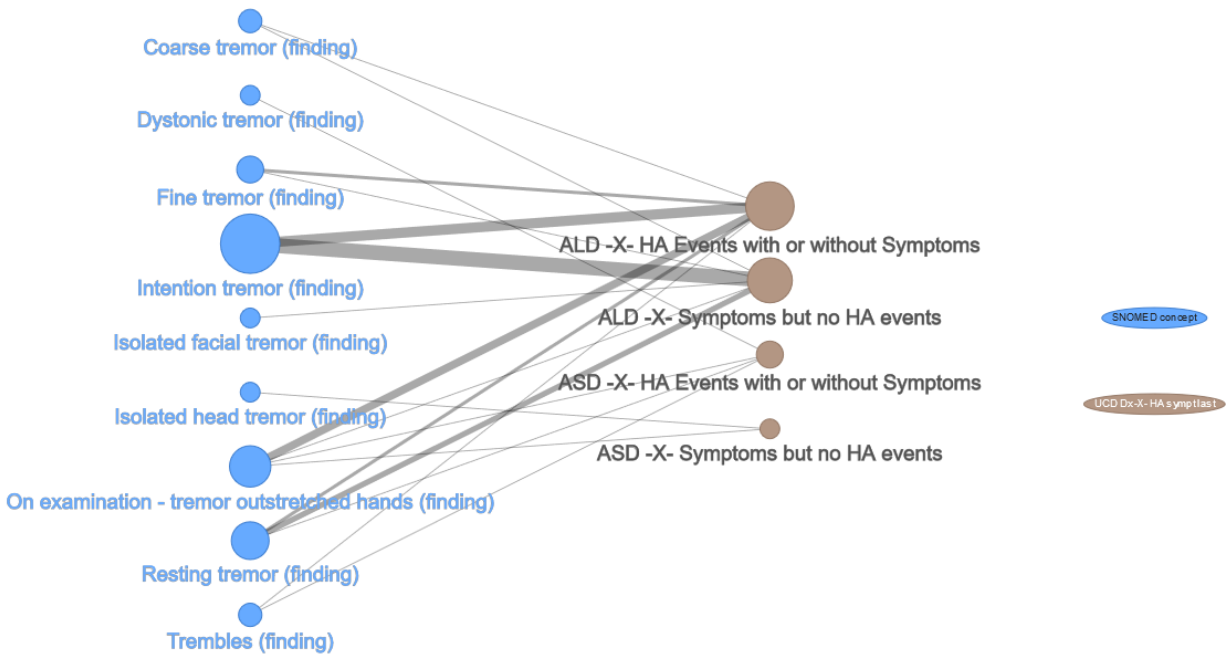


Figure 3: Graph for “fine tremor (finding)”

## Description set 2

Table 3 shows the results of querying concepts contained in supplied description set 2 (text containing lower case “tremor.”) Note that both the supplied text and database text were converted to lower case within queries.

Table 3: Tremor FSN query results for description set 2

Description	SCT ID	Active	n-participants
benign tremor	NA		0
bilateral intention tremor	NA		0
body tremor	NA		0
coarse intention tremor	NA		0
coarse tremor.	NA		0
essential tremor, fine	NA		0
essential tremor	NA		0
essential fine tremor	NA		0
essential tremor	323258001	0	0
essential tremor, benign	NA		0
essential tremors	NA		0
facial muscle tremor	NA		0
fine motor tremor	NA		0
fine motor tremor with finger extention and writing	NA		0
fine resting tremor	NA		0
fine tremor	42800007	1	7
fine tremors	NA		0
finger to nose tremor	NA		0
finger tremor	NA		0
hand tremor	NA		0
hand tremors	NA		0
has tremor and is slowing on finger-to-nose testing.	NA		0
has tremor and is slowing on finger to nose testing. unable to tandem gait.	NA		0
intention tremor	140873002	0	0
intention tremor left hand	NA		0
intentional tremor	NA		0
intentional tremor in hands	NA		0
intentional tremors	NA		0
left hand tremor	NA		0
left hand tremor with menses	NA		0
leg/jaw tremor	NA		0
mild fine tremor	NA		0
mild flapping tremor	NA		0
mild intention tremor	NA		0
mild tremor	NA		0
mild tremor at rest	NA		0
mild tremor bilaterally	NA		0
mild tremor in fingers	NA		0
mild tremor in fingers during pronator drift test	NA		0
mild tremor of hands (bl)	NA		0

Table 3: Tremor FSN query results for description set 2

Description	SCT ID	Active	n-participants
mild tremor of outstretched arm	NA		0
mild tremor on pronator drift	NA		0
mild tremor on pronator drift test	NA		0
mild/moderate tremor	NA		0
minimal intention tremor	NA		0
moderate hepatomegaly with a coarse liver. liver is approx. 3cm below costal margin with a soft adge. has up slanting palpebral fissures bilaterally. mildly dysmorphic. history of tremors. needs some assistance with her daily living. when she has fever she has lethargy. history of deevlopmental delay. mildly dysmorphic facial.	NA		0
occasional hand tremor	NA		0
occasional mild tremor x6 mo.	NA		0
occasional tremor	NA		0
occasional tremor with writing	NA		0
occasional tremors	NA		0
occasionally tremor	NA		0
posture tremor	NA		0
residual tremor	NA		0
resting tremor	25082004	1	12
resting tremor upper extremities bilateral	NA		0
resting tremor l & r	NA		0
resting tremors	NA		0
right foot tremor/twitching	NA		0
significatn tremor	NA		0
slight intention tremor	NA		0
slight intention tremor l=r, no other signs- no nystagmus	NA		0
slight resting tremor	NA		0
slight tremor	NA		0
some tremor	NA		0
some tremor on finger tap testing	NA		0
some tremor on pronator drift	NA		0
sometimes has tremor	NA		0
tremor	66880003	1	0
tremor action	NA		0
tremor at rest	NA		0
tremor at rest, bilateral upper extremities, head	NA		0
tremor extremeties	NA		0
tremor hands and arm	NA		0
tremor in finger-finger test	NA		0
tremor in finger to nose testing nose	NA		0
tremor in hands	NA		0
tremor in right leg	NA		0
tremor neck	NA		0
tremor of left hand	NA		0
tremor on finger point	NA		0
tremor on pronator drift	NA		0
tremor with dysarthria	NA		0
tremor, essential	NA		0
tremors	49958005	1	0

Table 3: Tremor FSN query results for description set 2

Description	SCT ID	Active	n-participants
tremors in hands	NA		0
tremors of fingers	NA		0
tremors of legs, arms, and hands	NA		0
tremors with ha episode	NA		0
very very mild tremor	NA		0
whole body tremors	NA		0
worsening tremor	NA		0

### Description set 3

Table 4 shows the results of querying concepts contained in supplied description set 3 (text containing upper case “Tremor.”) Note that both the supplied text and database text were converted to lower case within queries.

Table 4: Tremor FSN query results for description set 3

Description	SCT ID	Active	n-participants
bilateral tremor on both hands at baseline	NA		0
essential tremor	323258001	0	0
fine essential tremor	NA		0
fine motor tremor	NA		0
fine tremor	42800007	1	7
hand tremor	NA		0
intention tremor	140873002	0	0
left hand tremor	NA		0
mild tremor	NA		0
occasional tremors	NA		0
resting tremor	25082004	1	12
trace tremor	NA		0
tremor	66880003	1	0
tremor (hands)	NA		0
tremor hand (right;left)	NA		0
tremor in fingers	NA		0
tremor no longer present	NA		0
tremor occasionally noted, not interfering with daily function	NA		0
tremor of both hands	NA		0
tremor of hands	NA		0
tremor upper extremity	NA		0
tremors	49958005	1	0
tremors, documentation begins in available medical records in may 1998	NA		0