



# Movement disorders, involuntary / tic disorders

## (February 2017)

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### Rationale

Movement disorders are classified as excessive (hyperkinetic) or reduced (bradykinetic) activity. Diagnosis depends primarily on careful observation of the clinical features.

### Causal Conditions

(list not exhaustive)

- Hyperkinetic
  - a. Tics
    - Primary (sporadic and inherited)
      - a. Tourette syndrome
      - b. Huntington disease
    - Secondary
      - a. Infections (e.g., encephalitis, Creutzfeldt-Jakob)
      - b. Drugs (e.g., stimulants, levodopa)
  - b. Dystonia
    - Primary (sporadic and inherited)
    - Dystonia plus syndromes (e.g., medication)
  - c. Stereotypies (typically with mental retardation or autism)
  - d. Chorea/Athetosis/Ballism
  - e. Essential tremor

- f. Myoclonus
- Bradykinetic
  - a. Parkinson disease
  - b. Wilson disease
  - c. Huntington disease
- Tremor
  - a. Resting (e.g., Parkinson, severe essential)
  - b. Intention (e.g., cerebellar disease, multiple sclerosis)
  - c. Postural/Action (e.g., enhanced physiologic, essential)

## Key Objectives

Given a patient with a movement disorder, the candidate will diagnose the cause, severity and complications, and will initiate an appropriate management plan.

## Enabling Objectives

Given a patient with a movement disorder, the candidate will

- list and interpret critical clinical findings, including
  - a. describing the abnormal movement accurately after careful observation (at rest and in action) to differentiate between various types and causes of movement disorders;
  - b. performing a history and physical examination to look for reversible causes (e.g., medications, Wilson disease);
  - c. identifying key physical findings characteristic of Parkinson disease (e.g., rigidity, akinesia);
- list and interpret critical investigations including
  - a. testing for Wilson disease, if indicated;
  - b. imaging studies or other tests, as appropriate;
- construct an effective initial management plan, including
  - a. initiating medications for common conditions (e.g., essential tremor);

- b. recognizing side effects of medication and modifying as necessary (e.g., dystonia, "on/off" phenomenon);
- c. determining if the patient requires specialized care for diagnosis or management (e.g., genetic testing);
- d. counselling about the psychosocial impact of the disorder.