Essential tremor

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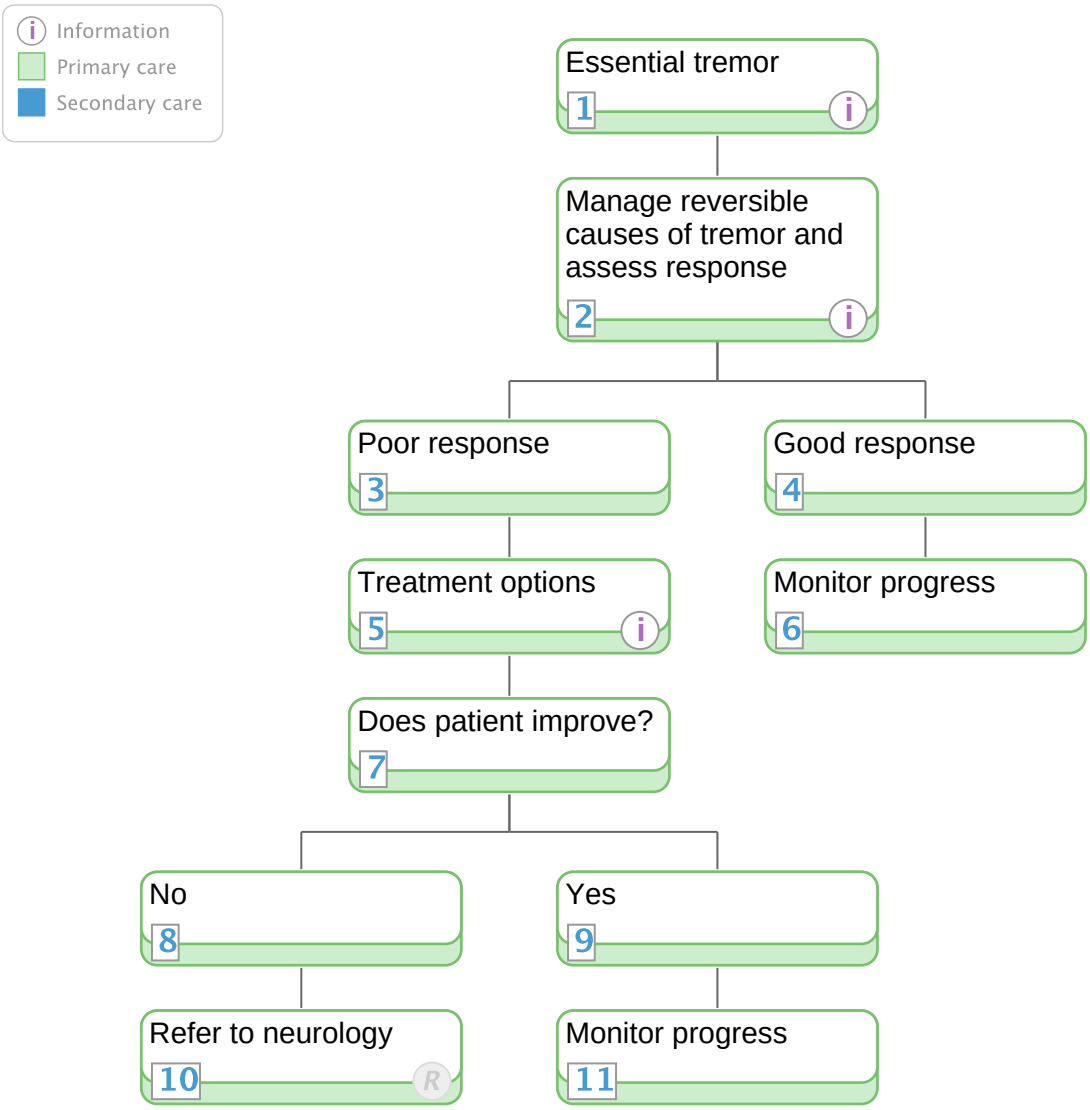

Locally reviewed: 31-Jul-2007 Due for review: 31-Jan-2009 Printed on: 15-Sep-2008 © Medic-to-Medic

IMPORTANT NOTE
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Essential tremor

1 Essential tremor

Quick info:

Scope:

- this page provides specific information on the diagnosis and management considerations for essential tremor

Definition:

- a largely symmetrical, postural or kinetic tremor involving hands and forearms that is visible and persistent. In some cases intention tremor may be present.
- It is one fo the most common and often mis-diagnosed movement disorders. The following should be excluded when making a diagnosis of essential tremor:
  - other abnormal signs, especially dystonia (mild defects in gait are permissible in severe essential tremor)
  - the presence of known causes of enhanced physiological tremor, including current or recent exposure to tremorgenic drugs or the presence of a drug withdrawal state
  - historic or clinical evidence for a psychogenic origin of tremor
  - convincing evidence of sudden onset or evidence of stepwise deterioration of tremor
  - primary orthostatic tremor
  - isolated voice tremor
  - position-specific or task-specific tremors, including occupational tremors and primary writing tremors
  - tongue or chin tremor
  - leg tremor
  - dystonic head tremor can present as an isolated head tremor but is considered by some as an essential head tremor

Incidence and prevalence:

- the prevalence increases with advancing age
- the estimated prevalence is between 0.8-22% depending on the population studied
- typical features of essential tremor:
  - a gradually progressive onset and course
  - a positive family history in approximately 50% of cases
  - essential tremor is alcohol responsive in approximately 50% of cases
  - typically broadly symmetrical regular, postural and/or kinetic tremor of the hands
  - in some cases an intention tremor is also present
- may cause impairment, disability and social handicap
- has a frequency range of 4-12Hz
- may be misdiagnosed as Parkinson's disease (see pathway). The latter should be considered when:
  - typical unilateral onset of tremor in a hand and occasionally a leg
  - a rest tremor, particularly a "pill rolling tremor" is present
  - additional features are present:
    - facial or vocal impassivity
    - reduced arm swing on walking and shoulder shrug test
    - cogwheel rigidity
    - bradykinesia (slow movements with decrement)
    - micrographia
    - depression and cognitive changes may be present
    - poor sense of smell
- other causes of parkinsonism and a dystonic tremor syndrome should be considered in the differential diagnosis of essential tremor
- investigation of essential tremor:
  - routine haematology and biochemistry
  - thyroid function tests
  - copper studies (particularly if under 50 years at onset)
  - protein electropheresis
  - dopamine transporter (DAT) imaging if clinical difficulty in distinguishing essential tremor from Parkinson's disease. DAT imaging is usually normal in essential tremor and abnormal in Parkinson's disease

References:

Zesiewicz TA, Elble R, Louis ED. Practice parameter: therapies for essential tremor: report of the Quality Standards Subcommittee of the American Academy of Neurology. Neurology 2005; 64: 2008-20.

Ferreira J, Sampaio C. Essential tremor. Clin Evid 2005; 1608-21.

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2 Manage reversible causes of tremor and assess response

Quick info:

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The diagnosis of essential tremor should be suspended in the presence of known causes of enhanced physiological tremor until these are treated.

5 Treatment options

Quick info:

There is evidence based medicine data to support the use of the following treatments for essential tremor:

- Level A
  - propanolol
  - primidone
  - propanolol long acting
- Level B
  - atenolol
  - sotalol
  - topiramate
  - gabapentin
  - alprazolam
- Level C
  - clonazepam
  - clozapine (beware of agranulocytosis, which can be fatal)
  - nadolol
  - nimodipine
  - botulinum toxin A

In essential tremor there is evidence based medicine data to support the use of:

- For head tremor:
  - Level B: propanolol
  - Level C: botulinum toxin A

In patients with disabling essential tremor that is refractory to medical treatment stereotactic surgery should be considered:

- thalamotomy (level C)
- Thalamic stimulation (deep brain stimulation) (level C)
  - 60-90% decrease in tremor (assessed by clinical rating scale)
- deep brain stimulation has fewer adverse events than thalamotomy (level B)
- bilateral thalamotomy is not recommended (Level C)
  - this is because of a high incidence of speech disorders associated with bilateral thalamotomy

References:

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Key Dates

Due for review: 31-Jan-2009
Locally reviewed: 31-Jul-2007, by
Updated: 15-Sep-2008

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