



Optimal Care for neurology

Evidence driven ~ Better outcomes ~ Lower cost

Management of neurology conditions

TIA or minor stroke

- Highest risk of progression to completed stroke is in the first 3 days.
- Emergent evaluation can reduce progression to stroke by 80%.
- Most frequent presenting symptoms are unilateral weakness or speech disturbance, each with 50% prevalence.
- Carotid stenosis and atrial fibrillation are the most common etiologies needing immediate attention.¹

Parkinson's disease

- Diagnosis based upon history /examination and brain imaging not routinely indicated.
- Tremor at rest and cogwheel rigidity reliably differentiates Parkinson syndromes from essential tremor.

Management and diagnosis of migraines

- MRI is indicated for new onset migraine over age 50 or significant change in migraine pattern.
- Prophylactic treatment is only used in 10% of migraine patients when indicated; these treatments prevent unnecessary utilization of ER and MRI.
- Migraine is underdiagnosed, criteria include:
 - Five headaches lasting 4-72 hours in a lifetime.
 - Severe enough to affect daily activities.
 - Associated with nausea or light/sound sensitivity.
 - Often misdiagnosed as sinus or muscle contraction headache.

Asymptomatic carotid artery stenosis²

- Ultrasound screening is not indicated.
- Medical therapy is superior to surgical therapy.
- Thirty-day stroke rate or death rate with carotid endarterectomy is 7%.

Additional notes:

Syncope: Rarely a cerebrovascular symptom and neurovascular imaging is not indicated unless TBI suspected, severe headache, or neuro abnormalities present with syncope.³ *Refer to the Optimal Care algorithm for management.*

Vertigo: Isolated vertigo is a symptom of vertebrobasilar ischemia in less than one percent of cases.

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1. Sacco RL, Rundek T. The Value of Urgent Specialized Care for TIA and Minor Stroke. *New England Journal of Medicine*. 2016;374(16):1577-1579. doi:10.1056/NEJMe1515730
 2. Lichtman JH, Jones MR, Leifheit EC, et al. Carotid Endarterectomy and Carotid Artery Stenting in the US Medicare Population, 1999-2014. *Jama*. 2017;318(11):1035. doi:10.1001/jama.2017.12882
 3. Hanna EB. Syncope: Etiology and diagnostic approach. *Cleveland Clinic Journal of Medicine*. 2014;81(12), 755-766. doi:10.3949/ccjm.81a.13152

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