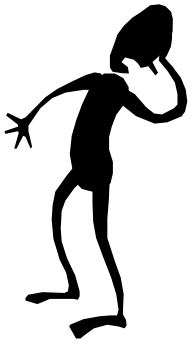
VA GLAHS NURSING RESEARCH COUNCIL PRESENTS
Evidenced-Based Fact Sheet to Improve Care
PARKINSON'S DISEASE

VA GREATER LOS ANGELES HEALTHCARE SYSTEM
A Division of VA Desert Pacific Healthcare Network

What is Parkinson's disease?

- 2nd most common neurodegenerative condition after Alzheimer's disease
- results from the death of brain cells that produce dopamine; no cure
- deteriorating symptoms run 10-25 year course
- impaired quality of life for person and family



What are the major symptoms?

- vary person to person and throughout day depending on medication effects and "wearing off;"
- typically begins on one side of body
- classic motor symptoms, known as a "TRAP":
  Tremor at rest
  Rigidity or stiff**f**ness; often experienced as a pain syndrome
  Akinesia or bradykinesia- slow movement
  Postural instabilit**y**/falling & abnormal gait – high fall risk.

Other common symptoms

- Yelling in their sleep (REM sleep behavior disorder)
- Active visual hallucinations (from 'sun-downing,' untreated infection or too much levodopa and dopamine agonists)
- Urinary frequency/urgency; constipation.
- Depression and anxiety

What nursing care is important?

- **Timely medication administration** as per home schedule to keep blood levels of dopamine on an even level throughout the day for an "on" state (30' delay may make a difference). Give carbidopa/levodopa 30' before meals or any protein or dairy products. (Levodopa competes with dietary protein for absorption and may reduce drug efficacy). When meds have worn off, the person feels stiff and frozen ("off" state); too much can result in dyskinesias-twisting, jerky movements of the body. Patients may prefer to be 'over medicated' than undermedicated.
- **Don't hold PD meds** unless ordered by neuro-give with small amount of water if NPO.
- **Avoid rushing patient**--it takes longer for person to respond. Perform activities when the patient is "on," ~1 hour after PD meds. If he still has difficulty walking or transferring out of bed, he may need either to wait a little longer for the PD drug to "kick in" or an extra dose of levodopa
- **Avoid dopamine-receptor blockers** (haloperidol, prochlorperazine, metoclopramide, risperidone),which can aggravate PD symptoms. Consider quetiapine for agitation symptoms.
- **Falls risk assessment and prevention**

What else should I know about PD?

- Levodopa/caribdopa (or Sinemet) is the gold standard therapy for treating the core Parkinson motor symptoms of slowness, stiffness and tremor.
- Patients may be on different strengths of the same medication such as Sinemet 25/100 (carbidopa 25 mg, levodopa 100 mg-short-acting) and Sinemet CR 25/100-long-acting. Verify with the neuro team or pharmacist.
- As PD progresses, levodopa lasts or benefits patient for shorter time periods or ***motor fluctuations***—each dose wears off sooner and leaves the patient stiff, slow or with tremor.
- When "wearing off" begins, more levodopa is often prescribed or at shorter intervals, however, too much dopamine in the blood can produce ***dyskinesias.*** Dopamine agonists (pramipexole and ropinirole) MAO-B inhibitors (rasagaline, selegiline), COMT inhibitors (entacapone) may increase "on" time and reducing of levodopa dose. Amantadine may be used to boost the release of dopamine in the brain.

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References

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- Ward, C., Heath, S., Janovsky, V. et al., Care of the movement disorder patient with a deep brain stimulator. Journal of Neuroscience Nursing. April 2011; 43(2). www.aann.org/pdf/cpg/aanndeepbrainstimulation.pdf
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- Pahwa, R. et al., Quality Standards Subcommittee of the American Academy of Neurology. Practice Parameter: treatment of Parkinson disease with motor fluctuations and dyskinesia (an evidence-based review). Neurology. 2006 April 11; 66(7): 983-95.

Parkinson's Disease Research, Education & Clinical Center

PD Websites

- VA PADRECC www.parkinson.va.gov
- American Parkinson Disease Association www.apda.org
- Davis Phinney Foundation www.dpf.org
- Michael J. Fox Foundation www.michaeljfox.org
- National Parkinson Foundation www.parkinson.org
- Parkinson's Disease Foundation www.pdf.org
- My Parkinson's Story (a series of short videos made by the VA PADRECC/EES for Veterans, families and may be helpful for nurses. www.parkinsons.va.gov/patients.asp

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