

# MISSOURI HOSPITALIST

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## Hospitalist Update

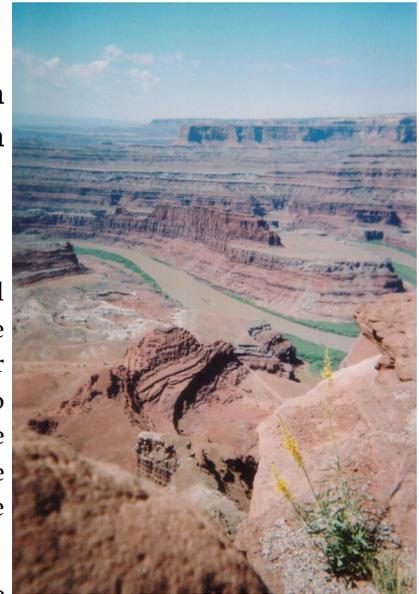
### Tips for Managing Older Adults with Parkinson's Disease or other Parkinsonian Disorders during Hospitalization

Kyle Moylan MD

Hospitalists manage many geriatric patients and one of the most challenging populations can be older adults with Parkinson's Disease (PD) or other Parkinsonian disorders. These patients are prone to complications such as delirium, falls and adverse effects of medications. However, there are some basic principles that may improve our efforts to care for them.

**Home Medications.** Patients with PD often take complex medication regimens, using agents with which internists may be unfamiliar. Commonly prescribed antiparkinsonian medications include carbidopa/levodopa (Sinemet), dopamine agonists [pramipexole (Mirapex), ropinirole (Requip)], COMT inhibitors [entacapone (Comtan)] and MAO inhibitors (selegiline and rasagiline). Patients often take these medications on complex schedules that have been developed over years and may have problems with parkinsonian symptoms, dyskinesias or other adverse effects if the medications are not taken as prescribed. The home dosing schedule should be replicated in the hospital setting and should involve coordination with nursing and pharmacy, with orders specifying the exact times of medication administration (rather than typical TID or QID dosing). Antiparkinsonism drugs should not be stopped abruptly as severe parkinsonism may ensue, including a "locked-in" rigid-bradykinetic state or even Neuroleptic Malignant Syndrome.

**Medications to Avoid.** The most important point to remember is that patients with parkinsonian disorders should not receive dopamine blocking drugs, including many antiemetics and antipsychotics, since they will exacerbate parkinsonian symptoms. Nausea is a common problem in PD and a side effect of Sinemet and other drugs; however, medications that block dopamine such as prochlorperazine (Compazine), promethazine (Phenergan) and metocloperamide (Reglan) should be avoided. 5-HT<sub>3</sub> receptor antagonists (ondansetron and others) can be used safely to control nausea. Delirium and psychosis are also frequently encountered in hospitalized older patients with PD but conventional antipsychotics such as haloperidol should be avoided. While atypical and second generation antipsychotics have less extrapyramidal (cont)



(cont) side effects, they can still exacerbate parkinsonism. If antipsychotic therapy is needed, quetiapine (Seroquel) is often well tolerated in low doses (starting with 12.5-25 mg) by PD patients. Given their propensity to develop delirium, older PD patients should not be treated with anticholinergic agents or benzodiazepines, since they may trigger or exacerbate acute confusion and delirium.

**Nonpharmacologic Interventions.** Patient with parkinsonism are prone to orthostatic hypotension, constipation, urinary difficulties, falls and deconditioning. Inpatient care should include a plan for early and daily mobilization with early involvement of physical and occupational therapists. Indwelling catheters and other tethers should be avoided. Nonmotor complications of PD, such as constipation, depression and orthostatic hypotension are generally treated as with other patients. For patients with longstanding PD, complex medication regimens, disease complications or inability to take oral medications, early involvement of the patient's neurologist or expert in movement disorders is advised.

### HOSPITALIST CONFERENCE & LUNCHEON

#### MISSOURI ACP MEETING

SATURDAY, SEPTEMBER 26, 12:15 PM

TAN-TAR-A RESORT, LAKE OF THE OZARKS

TOPIC: HOSPITAL ACQUIRED INFECTIONS

<http://www.acponline.org/meetings/chapter/mo-2009.pdf>

## CASE OF THE MONTH

Ahmad Tuffaha MD, UMKC

### **P-ANCA Vasculitis in a Patient with Alpha-1-Antitrypsin Deficiency: A Possible Mechanism**

#### **Introduction:**

Antineutrophil cytoplasmic antibody (ANCA) testing plays a critical role in the diagnosis and classification of vasculitis. These antibodies are strongly associated with Wegener's granulomatosis, microscopic polyangiitis and Churg-Strauss syndrome. They are directed against a variety of autoantigens, including proteinase 3 (PR3) and myeloperoxidase (MPO) [1]. On the other hand, alpha-1-antitrypsin (AAT) is the major inhibitor of PR3 while MPO is an inhibitor of AAT. It is well known that AAT deficiency is associated with emphysema and liver disease. The protein is encoded by a gene with multiple different alleles classified by the protease inhibitor (PI) system (PI\*MM = homozygous normal, PI\*ZZ = homozygous deficient). The PI\*ZZ phenotype carries a high risk for development of emphysema and liver disease [2]. (continued, page 3)