

Case Presentation on *Insidious* Drug induced Disease

Jeanette Altavela, PharmD, BCPS
Greater Rochester Independent Practice
Association

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Theresa is a 72 year old WF

- Diabetes, Hypertension, Hyperlipidemia
- Asthma, Allergic Rhinitis
- Dyspepsia/Schatzki's Ring
- Spinal Stenosis s/p Lumbar Lami 1972
Neuralgia, Radiculitis
- Osteopenia 6/99
- Hyperparathyroidism s/p Parathyroidectomy 7/99
- Restless Leg Syndrome (RLS)
- Anxiety/Depression
- Diverticulitis



Medication List

- Aspirin 81 mg once daily
- Multivitamin once daily
- Tums 500 mg once daily with food
- Vitamin C 500 mg once daily
- Vitamin E 400IU once daily
- Diovan HCT 160/12.5 once daily
- Norvasc 5 mg once daily
- Effexor XR 75 mg once daily
- Sinemet CR 200/50 tid
- Requip 0.5 mg 3 tablets tid
- Prilosec OTC 20 mg once daily
- Flonase 1 p each nostril once daily
- Neurontin 300mg 1 tid
- Tylenol #3 1-2 q4h prn alternating with Darvocet
N 100 2 po qid prn
- Clarinex 5 mg qd prn



- 5/04 Visit to Primary Care Physician (PCP):
Fatigued, Calcium 10.3, Parathyroid Hormone
(PTH) 106.6, urine calcium WNL
- 8/04 Very fatigued. Has been seeing Surgeon
who prescribed suppressive dose of
Levothyroxine in preparation for parathyroid
exploration. Calcium 10.3
- 10/04 Back pain. Suggested proceeding with
laminectomy as soon as surgeon is willing,
placing this ahead of parathyroidectomy.
- 1/05 Having fatigue and slowness likely related to
calcium. Proceed with parathyroid surgery in
spring or summer. Calcium 10.8
- 3/05 Pre-op Exam at PCP office, Calcium 10.3



- 4/05 GRIPA Clinical Pharmacist
makes suggestions
- 7/05 F/U with endocrinologist
 - Recommended Sensipar to lower
PTH, but patient refused
 - Patient d/c Levothyroxine on own
months ago.
- 8/05 Calcium 9.9 (ionized 5.2) after
Hydrochlorothiazide discontinued,
she is currently caring for husband
that is very ill.



Prevent/Recognize other *Insidious* Drug Induced Diseases

- **Bone loss** – Dilantin, Phenobarbital, Butalbital
(in Fiorinal and Fioricet), Lupron
- **Dental Caries** – Opioids, Medications with
anticholinergic effects*
- **Incontinence in elderly**– Aricept, Exelon,
Razadyne, Benzodiazepines, Carbamazepine,
Phenytoin Phenobarbital, Gabapentin
- **Gout** – Niacin, Hydrochlorothiazide
- **Memory Loss** – Medications with
anticholinergic effects*
- **Tremor** – Depakote, Lithium

* Amitriptyline, Benadryl (Tylenol PM)
Ditropan, Flexeril, Meclizine, Librax



Suggestions to Prescriber

- Multivitamin once daily (**Continue; Vitamin D, it is important to prevent PTH stimulation**)
- Tums 500 mg once daily with food (**Continue ; Calcium (up to 1000 mg/day) is important to prevent PTH stimulation**)
- Vitamin C (**could help with iron absorption if that contributed to RLS?**)
- Vitamin E 400IU once daily (**is there an indication for this medication?**)
- Diovan HCT 160/12.5 once daily (**Discontinue hydrochlorothiazide as it's likely adding to hypercalcemia, then increase Diovan as needed to control HTN**)



Suggestions to Prescriber

- Norvasc 5 mg once daily (**Consider change to Felodipine 5 mg daily; could save \$180 annually out of her pocket**)
- Effexor XR 75 mg once daily (**could this be contributing to RLS? Started in 1996, restless leg appeared to be diagnosed after that**)
- Sinemet CR 200/50 TID (**Consider discontinuing or decreasing dose - this high dose can actually cause "Augmentation" of restless leg syndrome**)
- Requip 0.5 mg 3 tablets TID (**Requip 1 mg 1.5 tablets TID could save system over \$2500/year if she can cut pills with pill cutter**)
- Flonase 1 puff each nostril once daily (**address adherence, it appear she is not using regularly**)



Suggestions to Prescriber

- Gabapentin 300mg TID – (**This is a very low dose for an indication of pain, titrate dose up; it may also help RLS**)
- Tylenol #3 1-2 q4h prn alternating with Darvocet N 100 2 po QID prn (**Darvon inhibits the metabolism of Codeine to Morphine, which may decrease the effectiveness of Tylenol #3**)
- Clarinex 5 mg once daily prn (**Loratadine 10 mg once daily prn could save \$360 annually out of her pocket**)
- **Consider a Statin (LDL=134 mg/dl); i.e. Lovastatin 20 mg with supper**

