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# NATIONAL PBM BULLETIN

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VETERANS HEALTH ADMINISTRATION PHARMACY BENEFITS MANAGEMENT SERVICES (PBM),  
MEDICAL ADVISORY PANEL (MAP), & CENTER FOR MEDICATION SAFETY (VA MEDSAFE)

## TACRINE AND TACROLIMUS: LOOK-ALIKE/SOUND-ALIKE (LA/SA) CONFUSION

### I. ISSUE<sup>1</sup>

One local facility noted two instances of look-alike/sound-alike (LA/SA) errors where tacrine was ordered instead of tacrolimus.

### II. BACKGROUND<sup>1-3</sup>

Tacrine is a centrally active, reversible cholinesterase inhibitor used in the treatment of dementia associated with Alzheimer's disease. Tacrolimus is an immunosuppressant that is used to prevent organ transplant rejection and for the treatment of moderate to severe atopic dermatitis. Both are capsule formulations with the following strengths: tacrine 10mg, 20mg, 30mg, 40mg; and tacrolimus 0.5mg, 1mg, 5mg. Patients who have undergone liver, kidney, or heart transplant procedures who do not receive an immunosuppressant like tacrolimus may be at risk for organ rejection. Also, Alzheimer's patients who do not receive tacrine may experience cognitive decline and behavioral disturbances, especially if abruptly stopped.

In April 2009, physicians at one site clicked on tacrine instead of tacrolimus during computer order entry for prophylaxis of rejection after organ transplant in two patients. Pharmacists caught the error in the verification process and patients did not receive the wrongly entered drug. No adverse events or harm occurred. After discovering this close call, pharmacists wrote a therapeutic intervention which they reported to their Drug Utilization Evaluation (DUE) Committee. To prevent any future LA/SA confusion, the site placed medication indications in the orderable item drug text entry in CPRS and tacrine was removed from the ordering menu due to its minimal use at this facility.

### III. FACILITY/PROVIDER RECOMMENDATIONS

1. Facilities may choose to remove tacrine from being a selectable orderable item in the alphabetic medication list in CPRS pending local utilization patterns.
2. Staff must be informed of potential look-alike/sound-alike confusion between tacrine and tacrolimus when ordering these medications via the computer order entry system, especially if both medications remain orderable via the alphabetic medication list in CPRS.
3. Providers and pharmacists should carefully check the name, dosage, and indication when either tacrine or tacrolimus are ordered, especially if both medications remain orderable via the alphabetic medication list in CPRS.

### IV. REFERENCES

1. Field Information Report.
2. Cognex® package insert. Atlanta, GA: Sciele Pharma, Inc.; 2006 June.
3. Prograf® package insert. Deerfield, IL: Astellas Pharma US, Inc.; 2009 Feb.

#### **ACTIONS:**

- **Facility COS and Chief Nurse Executives:** Forward this document to all appropriate providers who prescribe/use/handle this agent (e.g., **primary care providers, organ transplant specialists, mental health specialists, neurologists, geriatrics, and dermatologists**, including contract providers, etc.). In addition, forward to the Associate Chief of Staff (ACOS) for Research and Development (R&D). Forward to other VA employees as deemed appropriate.
- **ACOS for R&D:** Forward this document to Principal Investigators (PIs) who have authority to practice at the facility and to your respective Institutional Review Board (IRB).