PROPRIETARY NAME
EVALUATION AT FDA

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Office of Drug Safety
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What is a Medication Error?

- Any PREVENTABLE event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the health care professional, patient, or consumer.

- FDA focuses on medication errors related to the safe use of a drug product. This includes the naming, labeling and/or packaging of a drug product.
What is a Proprietary Name?

• A name owned by a company or individual and is used for describing its brand of a particular product.
• Also known as a “Brand Name” or “Trademark”
How Serious Is The Problem with Names?

• 700 name pairs (both proprietary and generic names) reported to USP and FDA for sound-alike or look-alike confusion
• 25,000 medication error reports received by FDA
• 12.5% of errors related to names
Mortality Data from 1993-1998

AJHP - Vol 58; Phillips, et al; October 1, 2001

- 469 Fatalities - Med Errors
- 16% of deaths were due to receiving the wrong drug
- 5% of deaths were caused by proprietary name confusion
- 4% by generic name confusion
CAUSES ?
Similar Labels/Labeling
Avandia
and
Coumadin
Arania 4 mg 2 AM
Cormadin 4 mg 2 AM
WHAT IS FDA LOOKING FOR?

• Sound-alike/Look-alike Properties
  – To currently marketed & unapproved drug names
  – To other Medicinal Products
  – To commonly used medical abbreviations, medical procedures, and/or lab tests

• Promotional/Misleading Claims
What information is needed for the FDA Risk Assessment?

- Proprietary and Established Name(s)
- Strength(s)
- Dosing Schedule
- Use/Indication
- Labels/Labeling
- Working device model
- Formulation and Packaging proposed
Request for Proprietary Name Consult

Product Sponsor

Reviewing Division

Requests Name Phase II-IND

Project Manager

Consult

Project Manager

Expert Panel

RXSTUDY Name Studies

Computer Analysis (e.g. POCA)

Risk Assessment

SE Staff

Team Leaders

Deputy Director, DMETS

Assoc. Director Office of Drug Safety

Decision Made
DMETS Proprietary Name Analysis

• Expert Panel

• Computer Analysis
  – Orthographic/Phonetic
  – Search of other External Databases

• Rx Studies (Simulated)
  – Verbal Orders
  – Outpatient Orders - written
  – Inpatient Orders - written

• Overall Risk/Benefit Assessment
FDA Expert Panel

- Approximately 12 DMETS Safety Evaluators (Physician, Pharmacists, Nurses)
- 1 DDMAC representative (pharmacist)
- Facilitator is randomly selected & rotated
- Each expert member reviews reference texts and provides a relative risk rating for each name PRIOR to the meeting
- Overall group discussion and consensus for each name
Rx Studies

- Outpatient prescriptions - written
- Inpatient prescriptions - written
- Verbal prescriptions (Inpatient or Outpatient)
The Rx Study Design

- Study prescriptions are developed for failure mode from discussions/concerns of similar names at the Expert Panel
- Various staff members are asked to write sample prescriptions for each name
- Marketed Drug or a Control Rx is included
- Rx is scanned and e-mailed to a subset of FDA health care workers
- Results/interpretations are e-mailed back
Sample Size

- About 130 FDA physicians, nurses, pharmacists volunteers respond by e-mail with their interpretation and comments
- To eliminate any one reviewer from reviewing a name more than once we divide the entire group into thirds (n = 43) to review each verbal order, written outpatient and written inpatient orders. Response rate is approximately 70%.
<table>
<thead>
<tr>
<th>DATE</th>
<th>TIME</th>
<th>AUTOMATIC STOP ORDERS INCLUDE (BUT ARE NOT LIMITED TO): Narcotics - 3 Days Antibiotics - 7 Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/4</td>
<td>1800</td>
<td>Unless otherwise specifically stated, a generically or therapeutically equivalent drug, as approved by P&amp;T Committee, may be dispensed. ALL ORDERS MUST BE SIGNED BY PHYSICIAN</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12/4</td>
<td>1800</td>
<td>1800 mg low-fat diet</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total C, H2O, C + T2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>As instructed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Braxol 10 mg oxazepam</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Norvasc 10 mg BD</td>
</tr>
</tbody>
</table>

(Handwritten note: Dr. Opdra)
Verbal Orders

• Randomly selected DMETS staff asked to record a verbal Rx
• Example: This is Dr. Dee Mets and I’m calling in a prescription for Jane Doe for Novicar 40 mg daily. Give #30 with 2 Refills
Verbal Orders

• Verbal Prescriptions are recorded by DMETS on a voice messaging system and sent to the assigned FDA reviewers for interpretation

• Results are e-mailed back to DMETS
Phonetic and Orthographic Computer Analysis (POCA)

- A set of phonetic and orthographic algorithms for use in an automated and computerized method of evaluating proprietary names for sound-alike and look-alike properties
POCA

• Prototype completed in July of 2003 - should be operational in October and used routinely in all future DMETS reviews
• POCA provides a percentage ranking of orthographic and phonetic similarity between the proposed name and the databases of existing proprietary names.
• POCA also considers similar strengths and dosage forms when looking at a name
Safety Evaluator Risk-Analysis

- Examines the data from Expert Panel, Rx Studies, computerized searches, and POCA to establish any risk for confusion
- Evaluates the potential safety risk associated with two identified drugs being confused with each other due to similarity
- Also examines appropriate Post-Marketing pADE Data, Clinical and Regulatory Experience, & literature reports
Some Contributing Factors for Name Confusion

- Similar indications
- Same patient population
- Identical formulations
- Overlapping strengths or directions
- Stored in same areas
What is the Potential for Harm?

- What are the consequences if the patient misses the pharmacological action of the intended drug?

- What are the pharmacological actions and toxicities of the unintended drug?
Final Review

• Trademark is re-reviewed 90 days before action on the application
• Extensive evaluation is not repeated. Only reviewed for any confusion with names that have come on the market since the original review