The Impact of Food on Bioavailability of Oxycodone Myristate: A Case Report

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**BACKGROUND:**
- In efforts to reduce misuse of opioids, some insurers are making abuse deterrent opioid formulations preferred.
- Oxycodone myristate ER (Xtampza®) is an abuse-deterrent opioid formulation.
- Blood levels of this alternative extended-release formulation vary with dietary caloric and fat intake.

The purpose of this case report is to describe the impact of an interdisciplinary team on pain control for a patient taking Xtampza®.

**CASE DESCRIPTION:**

Pam's breast cancer pain is well-controlled on OxyContin®, but then...

Her insurance required a formulary switch to Xtampza®.

Now Pam is in pain and cannot exercise.

The PC team educated Pam to routinely eat moderate fat/calorie meals with Xtampza®.

Pam's pain improved & she returned to her ADLs.

**Table 1. Patient Opioid Requirements and Therapeutic Outcomes**

<table>
<thead>
<tr>
<th># HC/APAP Doses Required Weeks 1-2* (OME)</th>
<th>Baseline (OxyContin®)</th>
<th>Month After Switch to Xtampza®</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 (60 mg)</td>
<td>6 (60 mg)</td>
<td>6 (60 mg)</td>
</tr>
<tr>
<td>3 (30 mg)</td>
<td>4 (40 mg)</td>
<td>5 (50 mg)</td>
</tr>
<tr>
<td>2-3 (20-30 mg)</td>
<td>0-2 (0-20 mg)</td>
<td>5 (50 mg)</td>
</tr>
<tr>
<td>ER Opioid OME</td>
<td>90 mg</td>
<td>90 mg</td>
</tr>
<tr>
<td>Frequency of ER Opioid</td>
<td>12 hours</td>
<td>12 hours</td>
</tr>
<tr>
<td>MDD (mg)</td>
<td>120-150</td>
<td>120-150</td>
</tr>
<tr>
<td>Consistent Diet?</td>
<td>LFLC</td>
<td>LFLC</td>
</tr>
<tr>
<td>Exercise/Functional Status</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Pain Controlled?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

*Name was changed to protect patient’s identity.

**Figure 1. Pharmacokinetic Data of Xtampza® and OxyContin®**

Pharmacokinetic values are reflective of a single dose of oxycodone 40 mg. The variable bioavailability of Xtampza® is dependent on dietary caloric and fat intake. The estimated caloric and fat content for LFLC, MFMC, and HFHC was approximately 200-300 calories and ~6% fat, 500-600 calories and ~30% fat, and 800-1,000 calories and ~50% fat, respectively. Data was obtained from the Xtampza® FDA briefing document.

**CONCLUSION & DISCUSSION:**
- Xtampza® has been shown to have a lower bioavailability in a fasting state compared to OxyContin® in a fasting state.
- An interdisciplinary team approach can improve pain control in the setting of “forced” formulary switches to Xtampza®.
- Providers should educate patients and provide dietary recommendations to optimize pain management while using Xtampza®.
- Further research should be directed on evaluating the dietary impacts of pain management with Xtampza®.

**REFERENCES:**
Available on web link above.

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The efficacy of oxycodone myristate ER may be compromised in patients with cancer experiencing anorexia, decreased or inconsistent food intake, or low-fat/low-calorie diets.