Table 1. Abuse-Deterrent Technologies\textsuperscript{3, 2, 5}

<table>
<thead>
<tr>
<th>Abuse-Deterrent Technology</th>
<th>Mechanism of Deterrent</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical and chemical barriers</td>
<td>Difficult to crush, difficult to extract, breaks into chunks if crushed, forms a gel when dissolved, or retains ER properties when crushed</td>
<td>Does not deter abuse of intact tablets</td>
</tr>
<tr>
<td>Agonist/antagonist combination</td>
<td>Antagonist is clinically active when manipulated to reduce or prevent euphoria</td>
<td>Accidental chewing or crushing may reduce analgesic effects and/or precipitate withdrawal symptoms Does not deter abuse of intact tablets</td>
</tr>
<tr>
<td>Aversion</td>
<td>Added substance produces an unpleasant effect when manipulated (e.g. nasal irritant) or if used at higher doses than indicated</td>
<td>Compliant patients may experience adverse effects Legitimate dose increases with intact tablets may be limited by adverse effects A motivated abuser may not be sufficiently deterred by the adverse effects</td>
</tr>
<tr>
<td>Delivery system</td>
<td>Method of drug delivery is resistant to abuse (e.g. depot formulations or subcutaneous implants)</td>
<td>May still be possible to extract the opioid from the formulation</td>
</tr>
<tr>
<td>Prodrug</td>
<td>Requires chemical or enzymatic transformation \textit{in vivo} to activate opioid activity</td>
<td>Does not deter abuse of intact tablets</td>
</tr>
</tbody>
</table>