Is there a primary care tool to detect aberrant drug-related behaviors in patients on opioids?

EVIDENCE-BASED ANSWER

Yes. Of the several screening instruments developed and originally validated in patients in a pain center population (TABLE), one also has been validated in primary care. The Current Opioid Misuse Measure (COMM) predicts aberrant drug-related behaviors in primary care patients who have been prescribed opioids within the past 12 months with a sensitivity of 77% and specificity of 77% (strength of recommendation [SOR]: B, cohort studies).

Although not validated in primary care populations, 3 other instruments (the Addiction Behaviors Checklist [ABC], Prescription Opioid Misuse Index [POMI], and Prescription Drug Use Questionnaire [PDUQ]) detect aberrant drug-related behaviors in pain center patients with chronic pain with sensitivities of 82% to 87.5% and specificities of 86.14% to 92.3% (SOR: B, cohort studies).

Evidence summary

The COMM—originally designed to detect recent aberrant drug-related behaviors in pain center patients—was validated by a cross-sectional study involving 238 primary care patients who had been prescribed an opioid within the previous 12 months.¹

The study authors defined aberrant drug-related behaviors as meeting the criteria for prescription drug use disorder in the Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV). High COMM scores significantly predicted this diagnosis ($P<.001$). A COMM cutoff score >13 yielded a sensitivity of 77% and a specificity of 77% (positive predictive value=0.30; negative predictive value=0.96).

Development of the COMM. The authors of the COMM developed questions by expert consensus for use in a population of patients in a pain center. They established the validity of the questions by correlating COMM results from a cohort of pain center patients with 2 previously validated instruments: The Marlowe-Crowne Social Desirability Scale and the Aberrant Drug Behavior Index. They also tested COMM’s validity for monitoring changes in aberrant drug-related behaviors in a second cohort (sensitivity=94%; specificity=73%).² They later cross-validated COMM with another group of 226 patients treated at pain management clinics, achieving similar results.³

Three additional tools have been validated only among pain clinic patients

The ABC was developed based on literature review and validated against the PDUQ and clinician judgment of opioid misuse. Scores on the ABC differed significantly between patients who were discontinued from opioid therapy (based on urine toxicology, for example) and patients who weren’t ($P=.021$).⁴

The authors of the POMI determined sensitivity and specificity by comparing the POMI with DSM-IV diagnostic criteria for opiate addiction. One weakness of this index is that it is based on a small, homogenous sample.⁵

Items in the PDUQ were based on a literature review and extracts from the charts of patients with chronic pain.⁶
Two systematic reviews of screening tools used to predict aberrant behaviors in pain center populations included several studies with methodologic limitations.\(^7\),\(^8\)

**Recommendations**

A guideline from the American Pain Society based on a systematic review concluded that the most predictive factor for aberrant drug-related behaviors is a personal or family history of drug or alcohol abuse.\(^9\),\(^10\) In 2009, APS and American Academy of Pain Medicine developed guidelines to assist in selecting, risk-stratifying, and monitoring patients on chronic pain medication.\(^9\),\(^10\)

The American Society of Interventional Pain Physicians recommends evaluation of misuse risk, but considers screening tools an optional measure during initial assessment for opioid prescribing.\(^11\)

### TABLE

<table>
<thead>
<tr>
<th>Tool</th>
<th>No. of items</th>
<th>Type of questionnaire</th>
<th>Original sample</th>
<th>Cutoff score</th>
<th>Psychometric properties</th>
<th>Where to obtain</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM(^2)</td>
<td>17</td>
<td>Self-administered questionnaire</td>
<td>227 pain center patients</td>
<td>9/17</td>
<td>Sensitivity=77% Specificity=66% +LR=3.48 -LR=0.08</td>
<td><a href="http://www.painedu.org">www.painedu.org</a></td>
</tr>
<tr>
<td>ABC</td>
<td>20</td>
<td>Interview</td>
<td>136 pain center patients</td>
<td>3/20</td>
<td>Sensitivity=87.5% Specificity=86.14%</td>
<td>Available in original article(^4)</td>
</tr>
<tr>
<td>POMI</td>
<td>8</td>
<td>Yes/no inventory</td>
<td>74 community and pain center patients with known substance addiction or who received oxycodone for pain</td>
<td>2/8</td>
<td>Sensitivity=82% Specificity=92.3%</td>
<td>Available in original article(^5)</td>
</tr>
<tr>
<td>PDUQ</td>
<td>42</td>
<td>Interview</td>
<td>52 pain center patients identified as displaying aberrant drug-related behaviors</td>
<td>15/42</td>
<td>F-test=5.99, df=2/39, P=.005</td>
<td>Available in original article(^6)</td>
</tr>
</tbody>
</table>

ABC, Addiction Behaviors Checklist; COMM, Current Opioid Misuse Measure; df, degrees of freedom; LR, likelihood ratio; P, P value; PDUQ, Prescription Drug Use Questionnaire; POMI, Prescription Opioid Misuse Index.

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### Additional reviews

Two systematic reviews of screening tools used to predict aberrant behaviors in pain center populations included several studies with methodologic limitations.\(^7\),\(^8\)

### References