Introduction
Chronic pain lasting more than three months is a common problem, affecting approximately one fifth of the population in Europe.1

Opioids can be an effective treatment when other strategies have been unsuccessful, but in some patients it may lead to problem use.2 This is also a risk for some other drugs commonly prescribed for neuropathic pain, notably gabapentin and pregabalin,3,4 as well as amitriptyline and other tricyclic antidepressants.5

The use of a tool to accurately predict which patients are more at risk of analgesic abuse would help to inform safe and effective prescribing for patients with chronic pain.

Aim
This review aimed to evaluate the use of validated measurement tools to assess risk of analgesic misuse, or associated aberrant drug related behaviours, either prior to, or during, analgesic therapy with prescribed opioids, gabapentinoids or tricyclic antidepressants for chronic pain.

Method
Selected databases (Embase, Medline, Cochrane library/CENTRAL, PsycINFO, PubMed, CINAHL) were systematically searched for studies, using predetermined inclusion and exclusion criteria.

Inclusion Criteria:
✓ Population: Adults (18 and over) with a diagnosis of chronic pain (pain persisting for more than 3 months), where analgesic medication is prescribed or under consideration
✓ Type of Studies: Systematic reviews of controlled trials and prospective observational studies; controlled trials comparing use of a validated assessment tool with no tool (or with another tool), or open label extensions; prospective observational studies evaluating the use of a validated assessment tool; studies using an accepted method of assessing misuse of prescribed analgesics (clinical interview, structured interview, questionnaires, prescription drug monitoring, drug screening). Studies describing the initial derivation of tools and preliminary validation were also included
✓ Outcome Measures: Prediction of prescribed analgesic misuse (defined as taking more than the quantity prescribed, more frequent requests for prescriptions; or taking analgesics when not required for pain relief)
✓ Years: 1990-2015
✓ Publication Status: Published in a peer reviewed journal

Exclusion Criteria:
‡ Studies including patients with acute or cancer pain
‡ Studies using tools to predict misuse of non-prescribed substances
‡ Non English language studies
‡ Editorials, commentaries, narrative reviews, conference proceedings, meeting abstracts.

Two independent reviewers (RL & DM) reviewed all the resulting abstracts to select eligible articles. Differences were discussed with an experienced third party (LC). Both reviewers then reviewed full copies of all eligible articles, and extracted data in accordance with the pre-specified data items. The reviewers also assessed risk of bias for included studies using the Cochrane “Risk of Bias” criteria and quality using SIGN methodology.

Meta-analysis was considered but not undertaken given the heterogeneity in definitions and methods across selected studies.

Results and Discussion
Searches of all databases yielded 1844 abstracts and 30 studies were selected for full text review. Four additional studies were added for full review, after review of bibliographies.

No studies were identified that described or evaluated tools that screened for, or predicted, problematic use of either gabapentinoids or tricyclic antidepressants. Most of the tools identified were derived from reviews of the literature, and choices of tool may depend on the population being screened, and resources available.

Tools Predicting Aberrant Behaviours

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<tr>
<th>Tool Description</th>
<th>Reference</th>
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<tbody>
<tr>
<td>ORT (Opioid Risk Tool)</td>
<td>Webster et al, 2005</td>
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<td>PMQ (Pain Medication Questionnaire)</td>
<td>Adams et al, 2004</td>
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<td>Prescription Opioid Therapy Questionnaire (POTQ)</td>
<td>Michna et al, 2004</td>
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<tr>
<td>SOAPP (Screening and Opioid Assessment for Patients with Pain, Version 1.0)</td>
<td>Butler et al, 2004</td>
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<tr>
<td>SOAPP-R (Revised Screening and Opioid Assessment for Patients with Pain)</td>
<td>Butler et al, 2008</td>
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<tr>
<td>STAR (Screening Tool for Addiction Risk)</td>
<td>Friedman et al, 2003</td>
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<td>BRI (Brief Risk Interview)</td>
<td>Jones et al, 2013</td>
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<tr>
<td>BRQ (Brief Risk Questionnaire)</td>
<td>Jones et al, 2015</td>
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Tools Screening for Aberrant Behaviours

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<tr>
<th>Tool Description</th>
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<tr>
<td>COMMT (Current Opioid Misuse Measure)</td>
<td>Butler et al, 2007</td>
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<tr>
<td>POMI (Prescription Opioid Misuse Index)</td>
<td>Kinsely et al, 2008</td>
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Tools for Predicting and Screening for Aberrant Behaviours

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<th>Tool Description</th>
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<tr>
<td>PDUQ (Prescription Drug Use Questionnaire)</td>
<td>Compton et al, 1998</td>
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<td>OCC (Opioid Compliance Checklist)</td>
<td>Jamison et al, 2014</td>
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Documentation / Monitoring Tools

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<th>Tool Description</th>
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<tr>
<td>PADC (Pain Assessment and Documentation Tool)</td>
<td>Passik et al, 2004</td>
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<tr>
<td>ABC (Addiction Behaviours Checklist)</td>
<td>Wu et al, 2006</td>
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Of the tools identified, the following are represented by the best evidence:

Prediction of Aberrant Behaviours (PMQ)6
• Pain Medication Questionnaire and Opioid Assessment for Patients with Pain (SOAPP)7–10

Screening for Current Aberrant Behaviours (COMMT)11,12
• Opioid Compliance Checklist (OCC)14,15

Conclusions
Further studies are required to test these tools in other populations and in different countries, to establish utility, and to consider adapting or extending their use to other prescribed analgesic drugs. Given the recent increase in gabapentinoid misuse, development of specific measures to assess this risk will be of importance in the future, and will require validation in populations across both primary and secondary care.

References