Using ÖMPQ to Reduce Risk of Prolonged Disability in Workers’ Compensation Cases

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Prolonged disability can be harmful to the worker …

- *Increased risk of not getting back to any job*
- *Unemployed have higher rates…..*
  - *Morbidity*
  - *Mortality*
Can we predict who is at risk for prolonged disability and provide some type of intervention to prevent bad outcomes?

The challenge …

Some claimants with little or no impairment are more pain disabled than claimants with definite impairment.
Psychosocial factors may be more important than biomedical factors in development of chronic pain disability
Pain catastrophizing and fear avoidance research

- **Pain catastrophizing scale**
  - Upper tertile 1.7 x more likely to have chronic pain disability at 26 wks vs. lower tertile (Picavet 2002)
  - Upper quartile 1.8 x more likely to have chronic pain disability at 26 wks vs. lower quartile (Buer 2002)

- **Fear avoidance scale**
  - Upper tertile 2.6 x more likely to have chronic pain disability at 26 wks vs. lower tertile (Picavet 2002)
  - Upper quartile 2.5 x more likely to have reduction in daily activities vs. lower quartile (Buer 2002)
Fear Avoidance Model

Ref: Vlaeyen 2000; Buer 2002; Waddell 2004; Leeuw 2007
Related references #1


Related references #3


Related references #4


• Additional references at end
One screening tool for predicting risk of prolonged disability…

- Applicable for any body part

Örebro Musculoskeletal Pain Questionnaire

ÖMPQ is composite of psychometric tools

- Number of pain areas
- Job dissatisfaction
- Anxiety
- Depression
- Pain catastrophizing
- Fear avoidance
WorkSafeNB Thresholds …

• < 99 = low risk prolonged disability
  ▪ predominantly biological pain generator

• > 139 = predominantly psychosocial pain generator
  ▪ 140-147 = high risk prolonged disability
  ▪ > 147 = very high risk prolonged disability
Related references #1


Related references #2


**Case management experience prior to Mar. 2008**

Baseline: New STI Claims 2006 – Claim profiles by ÖMPQ Group

<table>
<thead>
<tr>
<th>ÖMPQ Score</th>
<th>&lt; 99</th>
<th>99-139</th>
<th>&gt; 139</th>
<th>&gt; 147</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample size</td>
<td>71 (27%)</td>
<td>146 (57%)</td>
<td>38 (16%)</td>
<td>22 (10%)</td>
</tr>
<tr>
<td>% duration &gt; 26 wks</td>
<td>35%</td>
<td>47%</td>
<td>74%</td>
<td>77%</td>
</tr>
<tr>
<td>% working at 2 yrs</td>
<td>83%</td>
<td>77%</td>
<td>58%</td>
<td>50%</td>
</tr>
<tr>
<td>% work restriction at 2 yrs</td>
<td>8%</td>
<td>18%</td>
<td>24%</td>
<td>27%</td>
</tr>
<tr>
<td>Avg. claim duration(wks) ¶</td>
<td>31.9</td>
<td>37</td>
<td>46.6</td>
<td>54.6</td>
</tr>
</tbody>
</table>

¶ claims tracked for 2 years
Comparing interventions in 2006 claims when on benefits beyond week 26

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Group 1: Score &lt; 99</th>
<th>Group 2: Score &gt; 139</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physiotherapy</td>
<td>28%</td>
<td>37%</td>
</tr>
<tr>
<td>Imaging</td>
<td>19%</td>
<td>29%</td>
</tr>
<tr>
<td>Specialist consult</td>
<td>10%</td>
<td>24%</td>
</tr>
<tr>
<td>Acupuncture</td>
<td>1%</td>
<td>8%</td>
</tr>
<tr>
<td>Injections (blocks)</td>
<td>3%</td>
<td>16%</td>
</tr>
<tr>
<td>Surgery</td>
<td>7%</td>
<td>13%</td>
</tr>
<tr>
<td>Vocational rehab</td>
<td>6%</td>
<td>11%</td>
</tr>
</tbody>
</table>
Can we improve outcomes for claimants with ÖMPQ scores > 139?

WorkSafeNB’s High Risk Management Pilot: Mar 1 2008 to Feb 28 2009
Case Management Protocols

- If STI claim on benefits at 4 weeks post-injury or recurrence, refer client to physiotherapy clinic to obtain ÖMPQ score
- Case Assigned 4 weeks post-disablement

**If score > 139**

- **Face-to-face client meeting within 3 weeks post-assignment**
  
  Discuss recovery expectations, response to treatment, pending tests/medical appointments, work accommodation. Set expectations. Identify barriers to RTW. Interview script used to measure motivation.
Case Management Protocols

• **Contact Employer within 2 weeks post-assignment**
  
  *Discuss job demands & status, accommodation*

• **Contact Service Provider within 2 weeks post-assignment**
  
  *Discuss treatment progress & needs; RTW readiness, RTW options & the presence of psychosocial issues*

*If high risk for prolonged disability is validated:*

• **Plan interventions to address barriers such as:**
  
  *Concerns about recovery, lack of treatment progress, pending tests/specialists, complications, employment or personal issues.*
Case Management Protocols

• **Case management Team meeting by week 4-6 post-assignment**
  
  How to address remaining barriers, set timelines for action/follow-up.

• **Score 140-147**
  
  Active Unidisciplinary functional rehab (primary physio or work conditioning) + basic cognitive-behavioural intervention(s)

• **If score > 147 & no planned RTW**
  
  Start Multidisciplinary functional restoration with cognitive-behavioural therapy and work simulation
At 26 weeks, both intervention groups showed clinically significant improvement …

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<td>ÖMPQ: &gt; 139</td>
<td>ÖMPQ: 140-147</td>
<td>ÖMPQ: &gt; 147</td>
</tr>
<tr>
<td>Sample size</td>
<td>36</td>
<td>62</td>
<td>109</td>
</tr>
<tr>
<td>% Claims closed at 26 weeks</td>
<td>33%</td>
<td>76%</td>
<td>62%</td>
</tr>
<tr>
<td>% Working at 26 weeks</td>
<td>17%</td>
<td>68%</td>
<td>39%</td>
</tr>
<tr>
<td>Avg. claim duration to 26 weeks</td>
<td>24.0 wks</td>
<td>18.7 wks</td>
<td>20.2 wks</td>
</tr>
</tbody>
</table>

¶ based on intention to treat
Comparison of continuance (survival) plots at 26 weeks
Case management validation …

- **Not at risk for prolonged disability** – 7%
  - *Expected 10% false +ve rate*
- **High risk => very high risk** – 31%
- **Very high risk => high risk** – 39%
Conclusions

• ÖMPQ can be used to triage claimants into high / very high risk for prolonged disability

• ÖMPQ is a screening tool for predicting prolonged disability
  
  – Case Manager needs to validate if the case is at risk of prolonged disability
Conclusions

- *Early Case Manager intervention to address psychosocial issues reduced disability duration in claimants at high/very high risk*

  - *Involves some form of cognitive-behavioural intervention, depending on the nature of the issue(s)*
References #1


References #2


References #3


References #4

