The WOMAC (Western Ontario and McMaster Universities) Index of Osteoarthritis

Overview:

The WOMAC (Western Ontario and McMaster Universities) index is used to assess patients with osteoarthritis of the hip or knee using 24 parameters. It can be used to monitor the course of the disease or to determine the effectiveness of anti-rheumatic medications.

Pain:

(1) walking
(2) stair climbing
(3) nocturnal
(4) rest
(5) weight bearing

Stiffness:

(1) morning stiffness
(2) stiffness occurring later in the day

Physical function:

(1) descending stairs
(2) ascending stairs
(3) rising from sitting
(4) standing
(5) bending to floor
(6) walking on flat
(7) getting in or out of car
(8) going shopping
(9) putting on socks
(10) rising from bed
(11) taking off socks
(12) lying in bed
(13) sitting
(14) sitting
(15) getting on or off toilet
(16) heavy domestic duties
(17) light domestic duties

While the index was being developed performance of social functions and the status of emotional function were also included. These were not included in the final instrument.

Social function:
(1) leisure activities
(2) community events
(3) church attendance
(4) with spouse
(5) with family
(6) with friends
(7) with others

Emotional function:
(1) anxiety
(2) irritability
(3) frustration
(4) depression
(5) relaxation
(6) insomnia
(7) boredom
(8) loneliness
(9) stress
(10) well-being

Scoring and Interpretation

<table>
<thead>
<tr>
<th>Response</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>none</td>
<td>0</td>
</tr>
<tr>
<td>slight</td>
<td>1</td>
</tr>
<tr>
<td>moderate</td>
<td>2</td>
</tr>
<tr>
<td>severe</td>
<td>3</td>
</tr>
<tr>
<td>extreme</td>
<td>4</td>
</tr>
</tbody>
</table>

Alternatively a visual analogue scale (VAS) may be used ranging from 0 to 10.

\[
\text{score} = \text{SUM(points for relevant items)}
\]

\[
\text{average score} = \frac{\text{total score}}{\text{number of items}}
\]

Interpretation:

- minimum total score: 0
- maximum total score: 96
- minimum pain subscore: 0
- maximum pain subscore: 20
- minimum stiffness subscore: 0
- maximum stiffness subscore: 8
- minimum physical function subscore: 0
- maximum physical function subscore: 68

References:


