## Reviewer ID: Christie Chan, Jeremy Mak, John Zhu

### Type of Outcome Measure: Fatigue Severity Scale (FSS)

<table>
<thead>
<tr>
<th>Author ID Year</th>
<th>Study Design</th>
<th>Setting</th>
<th>Population (sample size, age) and Group</th>
</tr>
</thead>
</table>
| Anton et al. 2008 | 2-week methodologic study to assess the internal consistency, reliability and construct validity of the FSS. | A tertiary spinal cord rehab facility in Vancouver, Canada. | N=48  
Male=31  
Female=17  
Mean age=40.4  
Mean time since injury=14.9 years  
Major cause of injury=motor vehicle collision=27  
Motor complete SCI=48  
Tetraplegia=26  
ASIA grade A injuries=30 |
| Menon et al. 2015 | Prospective descriptive study | Research hospital in India | N=127 (35F, 92M)  
Age: 32.71 ±13.08  
Time Since Injury (days): 76.22 ± 82.5  
Myelopathy patients  
Admission AIS:  
AIS A: 58  
AIS B: 18  
AIS C: 36  
AIS D: 11  
Discharge AIS:  
AIS A: 47  
AIS B: 16  
AIS C: 26  
AIS D: 34 |

### 1. RELIABILITY

<table>
<thead>
<tr>
<th>Author ID</th>
<th>Internal Consistency</th>
<th>Test-retest Reliability</th>
</tr>
</thead>
</table>
| Anton et al. 2008 | Cronbach α=0.89 | ICC=0.84 (95% CI = 0.74–0.90)  
Items (ICC)  
1=0.32  
2=0.42  
3=0.51  
4=0.73  
5=0.77  
6=0.74  
7=0.70  
8=0.75  
9=0.74 |

### 2. VALIDITY

<table>
<thead>
<tr>
<th>Author ID</th>
<th>Validity</th>
</tr>
</thead>
</table>
| Anton et al. 2008 | Pearson correlation  
FSS positively correlated with:  
Visual Analog Scale for Fatigue (VAS-F) r=0.67 |
Centre for Epidemiologic Studies Depression Scale (CES-D) $r=0.58$

Negatively correlated with
Short Form-36 (SF-36) $r=-0.48$

Assuming an FSS cut-score of 4 to indicate clinically significant fatigue and a VAS-F score of over 6 to indicate severe fatigue.
Sensitivity=75%
Specificity=67%
The diagnostic values for a cut-score of 5 improved the specificity at the expense of sensitivity (83%, 54%).

Area under the ROC=0.799 for FSS indicating good ability to discriminate those with significant fatigue versus those without significant fatigue.

<table>
<thead>
<tr>
<th>Author ID</th>
<th>Interpretability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Menon et al. 2015</td>
<td>Change in FSS and change in Spinal Cord Independence Measure (SCIM) III from admission to discharge Spearman’s rho: 0.283 (p=0.031, significant)</td>
</tr>
</tbody>
</table>

3. RESPONSIVENESS – no data available
4. FLOOR/CEILING EFFECT – no data available
5. INTERPRETABILITY

<table>
<thead>
<tr>
<th>Author</th>
<th>Interpretability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anton et al. 2008</td>
<td>Mean (SD) values for Total and Individual FSS Items</td>
</tr>
<tr>
<td>Item</td>
<td>Mean (SD) FSS Score</td>
</tr>
<tr>
<td>1</td>
<td>5.7 (1.6)</td>
</tr>
<tr>
<td>2</td>
<td>3.8 (1.7)</td>
</tr>
<tr>
<td>3</td>
<td>4.1 (1.8)</td>
</tr>
<tr>
<td>4</td>
<td>4.7 (1.9)</td>
</tr>
<tr>
<td>5</td>
<td>4.0 (1.7)</td>
</tr>
<tr>
<td>6</td>
<td>4.1 (1.9)</td>
</tr>
<tr>
<td>7</td>
<td>4.2 (1.9)</td>
</tr>
<tr>
<td>8</td>
<td>4.1 (2.0)</td>
</tr>
<tr>
<td>9</td>
<td>4.3 (2.1)</td>
</tr>
<tr>
<td>Total</td>
<td>4.4 (1.4)</td>
</tr>
</tbody>
</table>

Standard Error of Measurement (SEM) for total FSS (calculated from data in article): 0.56
Minimal Detectable Change (MDC) for total FSS (calculated from data in article): 1.55