Method to Translate Patient Reported Outcome Measures into Disability Indicators

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Background

• Under Center for Medicare & Medicaid Services (CMS) Physician Fee Schedule Final Rule for CY 2013
  – Outpatient therapy providers have to report functional data for patients on the claim form according to "G-Codes"

• Since Jan. 1, 2013, CMS has required outpatient services that bill Medicare Part B to report functional outcomes on claims.
  – Since July 1, 2013 failure to report G-code modifiers can result in an automatic denial of the claim.
G-Code Categories and Modifiers

**G-Code Categories**

- Mobility: Walking & Moving Around
- Changing & Maintaining Body Position
- Carrying, Moving & Handling Objects
- Self Care
- Other PT/OT Functional Limitation
- Other SLP Functional Limitation
- Swallowing
- Motor Speech
- Spoken Language Comprehension
- Spoken Language Expression
- Attention
- Memory
- Voice

**Severity/Complexity Modifiers**

<table>
<thead>
<tr>
<th>Modifier</th>
<th>Impairment/Limitation/Restriction</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH</td>
<td>0%</td>
</tr>
<tr>
<td>CI</td>
<td>1-19%</td>
</tr>
<tr>
<td>CJ</td>
<td>20-39%</td>
</tr>
<tr>
<td>CK</td>
<td>40-59%</td>
</tr>
<tr>
<td>CL</td>
<td>60-79%</td>
</tr>
<tr>
<td>CM</td>
<td>80-99%</td>
</tr>
<tr>
<td>CN</td>
<td>100%</td>
</tr>
</tbody>
</table>
Therapists Need to:

- Choose assessments that fit one of the G-Code categories
- Convert scores from their assessment to G-Code modifiers (percent of impairment)
CMS is now requesting Claims-Based Outcomes Reporting (CBOR) with Medicare Part B claim submissions. This will be required starting July 1, 2013. MediServe has created this G-code "functional modifier" conversion calculator to help you score patients appropriately. We have included many relevant outcomes tools for you to select; input the score you have captured which then translates to the appropriate modifier code published by CMS.

If you are experiencing technical difficulties using the tool, try this version HERE.

MediServe does not own rights to any of the measurement tools in this calculator. MediServe is also not responsible for any denied claims or other adverse effects from using this tool.
Example of Conversion Using Box and Block Test

1 − [(Raw score−Min)/(Max−Min) *100%]  
(150−0) *100%] = 42% impaired

<table>
<thead>
<tr>
<th>Classification</th>
<th>Norms (Normal for R. hand)</th>
<th>CBOR Conversion Calculator</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-24 yrs</td>
<td>88.2</td>
<td>CK</td>
</tr>
<tr>
<td>40-44 yrs</td>
<td>83.0</td>
<td>CK</td>
</tr>
<tr>
<td>60-61 yrs</td>
<td>71.3</td>
<td>CK</td>
</tr>
<tr>
<td>75 + yrs</td>
<td>63.0</td>
<td>CK</td>
</tr>
<tr>
<td>Average of all adults</td>
<td>76.9</td>
<td>CK</td>
</tr>
</tbody>
</table>

Reference: [http://www.smpp.northwestern.edu/savedLiterature/MathiowetzEtAl%281985%29AmJofOT-BoxandBlocks.pdf](http://www.smpp.northwestern.edu/savedLiterature/MathiowetzEtAl%281985%29AmJofOT-BoxandBlocks.pdf)
Deriving Modifiers/Impairment Percentages from Scores

• Scores in and of themselves have no connection to modifiers/impairment percentages
  • A “perfect score” does not mean 100% impairment; A zero score does not mean 0% impairment
Advantages of Item Response Theory

• Places assessment values (measures) and item difficulties on the same linear continuum
  – Allows the connection of measures to meaningful descriptions of impairment
Methods

• ICF Activity Measure - Upper Extremity Self-Report (www.icfmeasure.com)
  – Computer Adaptive Measure of physical functioning based on the ICF

• Applied 1-parameter IRT (Rasch) rating scale model
  – Secondary analysis of 203 outpatients with upper extremity injuries or back pain
  – Create an item-person map to define G-Codes modifiers
Results

Person strata = 4.7

lifting 25 pounds shoulder to above head

lifting 10 pounds shoulder to above head

lifting 5 pounds floor to waist

lifting 1 pound floor to waist

Pulling open refrigerator door
Conclusions

• Traditional psychometric methods provide limited insights into impairment/disability determinations

• Modern psychometric methods (IRT/Rasch) have the advantage of connecting patient measures to the content of our PROs

• These connections may increase the usefulness of PROs in daily clinical practice
Questions/Discussion

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