Development, Validation, and Reliability Evaluation of a Functional Classification System

Christine S. Eixenberger
University of North Dakota

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DEVELOPMENT, VALIDATION, AND RELIABILITY EVALUATION
OF A FUNCTIONAL CLASSIFICATION SYSTEM

by

Christine S. Eixenberger

Bachelor of Science in Physical Therapy
University of North Dakota, 1991

An Independent Study
Submitted to the Graduate Faculty of the
Department of Physical Therapy
School of Medicine
University of North Dakota
in partial fulfillment of the requirements
for the degree of
Master of Physical Therapy

Grand Forks, North Dakota
May
1993
This Independent Study, submitted by Christine S. Eixenberger in partial fulfillment of the requirements for the Degree of Master of Physical Therapy from the University of North Dakota, has been read by the Chairperson of Physical Therapy under whom the work has been done and is hereby approved.

(Chairperson, Physical Therapy)
PERMISSION

Title Development, Validation, and Reliability Evaluation of a Functional Classification System

Department Physical Therapy

Degree Master of Physical Therapy

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Signature

Date ____________________________

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The author expresses appreciation to Dr. Alan K. Ward and Tim Welty for all of their assistance with the statistical analysis and input on the subject. Special thanks also goes to Janice Devine-Ruggles, who did the first part of this research, for her assistance with the analysis and rewriting of the Functional Classification System. Many hours were spent with Janice, and her expertise was very much appreciated!

The author would also like to express sincere appreciation to Bud Wessman for all of his hours of reviewing the paper and providing editorial advice.
ABSTRACT

Due to accountability, cost/benefit, and third party payers, it was necessary to develop an objective measurement of functional abilities of rehab patients. In Part I of the research, "Development of a Functional Classification System for a Rehabilitation Unit at St. Alexius Medical Center," a Functional Classification System (FCS) was developed and edited; however, the validity and reliability of the new FCS had to be justified.

Forty-seven patients admitted onto the St. Alexius Rehabilitation Unit between November 1992 and January 1993 were evaluated using version three of the FCS and objectively scored. Validity was tested between admit, discharge, and goal scores with a Pearson Correlation Coefficient of 0.8224 (moderately high) between admit and goal scores. The FCS scores were in a hierarchy fashion which is proper progression of a scoring instrument measuring progress. Content validity was found by use of a scale of one to five with one being agree and five disagree. The professionals agreed that the FCS did a good job of objectively measuring patient's status.

Inter-rater reliability was found by randomly selecting eleven of the forty-seven patients and then comparing three parameter scores: Grooming, Eating, and Transfers. The scores were scored between inter-disciplinary personnel.
each week. It was found that there was 11.5% agreement and 88.5% disagreement in the Grooming category; Eating, 46.2% agreement and 53.8% disagreement (but a high correlation coefficient); and Transfers, 46.4% agreement and 53.6% disagreement. The high difference in scores may be due to incomplete scores and inter-disciplinary scoring instead of intra-disciplinary scoring. Further research requires a larger population and additional intra-disciplinary rating.
CHAPTER I
INTRODUCTION

A Functional Classification System (FCS) is a scale used to objectively measure a patient’s function in a variety of areas, such as motor skills, cognition, applied self-care, and impairment severity. Such a system should be sensitive to the changes of the person assessed and be accurate.¹

Lawton¹ defined a functional assessment as "any systemic attempt to measure objectively the level at which a person is functioning in any of a variety of areas, such as physical health, quality of self-maintenance, quality of role activity, intellectual status, social activity, attitude toward the world and toward self, and emotional status." This depicts the thoroughness of the measurements in a Functional Classification System (FCS).

The analysis of a function should identify and classify functional abilities, activities, and limitations. A functional limitation can be defined as a consequence of a health problem and represents an inability to meet a standard of anatomical, physiological, psychological, or mental nature (impairment).¹ The functional assessment is a method of describing abilities and activities in order to measure an individual’s use of the variety of skills included in performing the tasks necessary in vocational pursuit, social

1
interaction, leisure activity, and other activities of daily living. A strong (FCS) should quantify all these functions.

An objective measurement for rehabilitation is needed due to the emphasis on accountability, cost/benefit ratio, third party payer demands, research interests, program development, and case management. Payor and consumer pressure to justify clinical care decisions and rehabilitation resource allocation is intensifying, making the use of functional assessment instruments increasingly important to clinicians, administrators, and researchers. It is clear that to understand disability and to manage a program of care effectively for the disabled patient, it is a complex process, but the process of care and rehabilitation can be made more manageable through the use of a functional classification system (FCS). Assessment of functional abilities and activities incorporates selected diagnostic, performance (skills/tasks), and social role descriptors. A Functional Classification System (FCS) should be a system that determines rehab appropriateness for any given patient and includes interdisciplinary rehab planning, measurement of patient progress, and predicts length of stay and expected rehab outcomes.

Purpose

This independent study is a continuation of a paper written by Janice Devine-Ruggles entitled, "Development of a Functional Classification System for a Rehabilitation Unit at St. Alexius Medical Center." In part one, a Functional Classification System was developed by the St. Alexius Rehab interdisciplinary
team headed by Janice Devine-Ruggles. The FCS was then rewritten and edited. The development and use of a standardized scale measures limitations of function of patients so that they can have an objective measurement in the areas of motor skills, cognition, self-care, and psychological adjustment. The final format of the Functional Classification System compiled by the St. Alexius multidisciplinary team provides an objective measurement of the patient’s status for the above skills.

The classification system developed is intended to: 1) measure both positive and negative results of inservice treatment, 2) measure patient outcome after discharge, 3) report results on a regular basis, 4) determine patient progress, and 5) help determine the appropriate management and care plan. The FCS developed is a unidimensional scale which must have the following items: 1) hierarchical progression from easy to difficult across the range of patient performance, 2) a clearly defined, common underlying trait or ability, and 3) an ability to maintain a constant difficulty order for all patients. If these requirements are met, than those patients with greater competence in the defined functional domain will have higher scores than patients with less competence. The distance between scale items should be equal, with units being fixed at intervals along the scale’s range.

The FCS developed by St. Alexius was edited to have unidimensionality and to fix the scale with equal intervals. It must be noted that critics of functional assessment can produce potentially invalid and misleading scores by
manipulating data. Thus, there is a need to validate assessment instruments so they can ultimately be used to guide or justify clinical or programmatic decisions.
Validity

Validity is the degree to which an instrument actually measures what it purports to measure. In a general sense, an instrument is valid if it does what it is intended to do. Validation always requires empirical investigation, which depends mainly on gathering opinions of people regarding various aspects of developing and employing a measuring instrument or tool. Validity usually is a matter of degree rather than an all-or-none property, and validation is an unending process. A valid measure is often stated as being free from both systematic and random error. Thus, reliability is also necessary for validation. A third property of the instrument is responsiveness, the ability to identify change of a specific health condition. Thus, scores from a proposed functional status must be repeatable, responsive, and stable in order to be valid.

To examine the validity of a test of behavior, there are three types of validity that can be used. They are criterion (or predictive), construct, and content.

Criterion, or predictive validity, is the accuracy of an assessment compared with a particular standard which may use correlation coefficients or
percentage agreements. It involves the comparison of scores on a new measure with one or more other measures known or believed to measure the concept being studied. Predictive outcomes, such as length of stay or mortality, are useful criteria because they are easily measured and represent milestones during recovery.

Construct validity is a measure of its ability to behave in a predetermined hypothesized fashion that is compatible with a theoretical framework. A construct represents a hypothesis (usually only half formed) that a variety of behaviors will correlate with one another in studies of individual differences and/or will be similarly affected by experimental treatment. Because constructs concern domains of the observable, it is logical to produce a better measure of any construct by combining the results from a number of measures. Thus, any particular measure can be thought of as having a degree of construct validity depending on the extent to which results obtained from using the measure would be much the same if some other measure, or hypothetically all the measures in the domain, had been employed in the experiment. Thus, combining the information from a number of particular measures relating to a construct, one can increase validity of the scientific generalization over that of using only one measure.

Three sources of construct validation are: 1) specifying the domain of the observable related to the construct, 2) from empirical research and statistical analyses determining the extent to which the observable tend to
measure the same thing, several different things, 3) subsequently, performing studies of individual differences and/or controlled experiments to determine the extent to which supposed measures of the construct produce results which are predictable from highly accepted theoretical hypotheses concerning the construct.  

In demonstrating the construct validity of functional status measures, investigators frequently correlate scores on a proposed functional status instrument with a variety of other health- and nonhealth-related measures believed to be related to a particular type of function. Again, correlation coefficients or other methods are used to demonstrate the construct validity.  

Content validation relies on expert opinion and review of literature. These are not usually measured by statistical means and rely on the statements of professionals that the scale adequately measures the functions of the different rehab diagnosis. If it is agreed by most potential users of the test, or at least by persons in positions of responsibility that the plan was sound and will carry out, the test has a high degree of content validity.  

Another type of circumstantial evidence for content validity is obtained by comparing performance on a test before and after a period of training. If a test measures progress in training, scores should increase from before to after.  

Reliability  

Reliability is the amount of random or chance error resulting from the use of a particular measure. A test is reliable if the measurement error (variance) is
Random error can never be completely eliminated from a measure, but to the extent that random error is slight, scores derived from that measure are stable, reproducible, or reliable. Random error in a measurement can arise from different sources: the measurement itself, the person administering the instrument, or the person to whom it is being administered. Reliability is needed to show that the FCS will have a minimal measurement of error. Reliability includes reproducibility among observers and consistency among scale items. Reliability is important because the error is increased if there is poor reproducibility over consecutive tests or among separate observers.

Three different types of reliability exist. These include: intra-rater reliability, inter-rater reliability, and internal consistency.

Intra-rater reliability refers to the stability of a score derived from one administration of a measure to another when administered by the same rater. The timing between the two tests is important, and there should be enough timing between the tests so that there will be minimal effects of memory, yet close enough to minimize the chance that the study will change to a significant degree due to natural changes.

Inter-rater reliability refers to the equivalence of scores derived from measures administered and scored by different raters. A complete assessment of this requires the comparison of scores from measures that are both administered and scored by different people. The time between the two
administrations of measure becomes critical, especially with rehab patients who will be progressing day to day.\cite{9}

Internal consistency is the third type of reliability. This assesses the extent to which different items in a particular measure or test are measuring the same characteristics.\cite{9} Internal consistency is a function of two factors: the number of items in the scale and the mean correlation between them. To increase the reliability of a measurement scale, one must not only increase the number of items but also increase the inter-item correlation.\cite{3} This assesses the homogeneity or internal consistency of the items making up the test. The greater the homogeneity, the greater the reliability.\cite{6}

**Precision**

Precision of a measure refers to the degree of change in the property under study that can be detected with a particular measurement procedure. Quantitative precision depends on a detailed specification of the phenomenon of interest. This can be the same as sensitivity, which traditionally refers to positivity in the presence of disease. An instrument, such as the FCS, should be sufficiently precise for its intended purpose. The degree of precision demanded in a measure also depends on the magnitude of change which can be expected to occur in the individuals under study. In selecting or constructing a health status measure, one must ensure that its prediction is sufficient for its intended purpose.\cite{9}
CHAPTER III

METHOD

There is a great potential for the FCS designed by the St. Alexius Rehab Department. In order to show whether this instrument is capable of objectively evaluating the patient and his/her progress, the validity, reliability, and precision of this instrument needs to be tested.

The level of function was rated on a 0 to 9 scale for each of the 33 items by the interdisciplinary team with the Ver.3 FCS. All 47 patients (25 male, 22 female) newly admitted between November '92 and January '93 onto the Rehab Unit were used in this study. The 47 patients were scored for admit, weekly, discharge, and goal scores using the Ver.3 FCS scale (Table 1).

Diagnoses were in the areas of multiple medical complication, head injury, spina bifida, amputation, myocardial infarct, cerebral vascular accident (CVA), orthopedic, and dementia. A total score of the individuals could be broken down to fit in the general definition of:

- 100 and under, mostly dependent;
- 150-200 partially independent;
- 200-220 mostly independent;
- 297 perfect score of independent normal function, no problems.
Table 1.--General Scores Used for the Functional Classification System.

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Unable to assess.</td>
</tr>
<tr>
<td>1</td>
<td>Patient dependent and unable to assist.</td>
</tr>
<tr>
<td>2</td>
<td>Patient assists but requires max assist of two to three persons.</td>
</tr>
<tr>
<td>3</td>
<td>Patient assisting but requires max assist of one.</td>
</tr>
<tr>
<td>4</td>
<td>Patient requires moderate assistance.</td>
</tr>
<tr>
<td>5</td>
<td>Patient requires minimal assistance.</td>
</tr>
<tr>
<td>6</td>
<td>Patient requires only standby assistance.</td>
</tr>
<tr>
<td>7</td>
<td>Patient independent with assistive or adaptive equipment.</td>
</tr>
<tr>
<td>8</td>
<td>Patient independent without assistive or adaptive equipment.</td>
</tr>
<tr>
<td>9</td>
<td>Patient is independent upon admission evaluation.</td>
</tr>
</tbody>
</table>

An analysis of the scores was done to find validity and inter-rater reliability (Appendix B).

To find content validity, a questionnaire was developed by Janice Devine-Ruggles and was completed by the professionals who used the FCS. A scale of 1 to 5 was used on the questionnaire, with 1 being agree and 5 disagree (Appendix C). The questionnaire was completed in March 1992 on the Ver.1 FCS and then again in January 1993 on the Ver.3 FCS. The scores were then
compared and analyzed. A percentage score was also used for comparison of the two versions.

Eleven of the forty-seven patients were randomly selected and the scores were reviewed with comparison of the scoring on the same function by different disciplines to find inter-rater reliability. The areas compared were Grooming, scored by nursing and occupational therapy; Eating, again scored by nursing and occupational therapy; and Transfers, scored by physical therapy and occupational therapy. The scores compared were taken from the admit, weekly, discharge, and goal scores of each of the individuals.

Analysis

The total admit, discharge, and goal scores were analyzed by the mean, median, standard deviation, standard error, two-way Friedman analysis of variance, and a one-way Kruskal Wallis analysis of variance (ANOVA). A Pearson Product Moment was also found to find a correlation between admit and goals’ points. If the correlation is high, it will be a 1.00; if there is a moderate correlation, it will be between .75 and 1.00 (Table 2). A percentage was also found for the hierarchy order by number of individuals scoring hierarchically divided by total number of individuals and then number of individuals not scoring hierarchically by total number of individuals.

For the content validity, the March 1992 scores were compared to the January 1993 scores and analyzed by the mean, median, standard deviation, and standard error. The Friedman two-way ANOVA was again used. The
Table 2.--Analysis of Admit, Discharge, and Goal Scores.  
N = 47  

<table>
<thead>
<tr>
<th></th>
<th>ADMIT</th>
<th>DISCHARGE</th>
<th>GOAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEDIAN</td>
<td>179.00</td>
<td>224.00</td>
<td>246.00</td>
</tr>
<tr>
<td>MEAN</td>
<td>171.78</td>
<td>214.35</td>
<td>238.35</td>
</tr>
<tr>
<td>RANGE</td>
<td>167.00</td>
<td>154.00</td>
<td>98.00</td>
</tr>
<tr>
<td>ST. ERROR</td>
<td>5.36</td>
<td>5.33</td>
<td>3.61</td>
</tr>
<tr>
<td>ST. DEV.</td>
<td>36.39</td>
<td>36.16</td>
<td>24.44</td>
</tr>
</tbody>
</table>

Pearson Correlation Coefficient: 0.8224 (relation of admit to goal scores).  
p = 0.161 with 32 DF (admit and goal scores).

The hypothesis that was tested is that the Ver.3 FCS is better than the Ver.1 FCS.  
This could be found by better range, mean, median, and percentages on the  
Ver.3 compared to Ver.1.  If the probability between the two different versions is  
not acceptable, then this will also state that the hypothesis statement is true  
(Table 3).

For inter-rater reliability, a percentage was used to find agreement or  
disagreement between each week’s scores of the eleven patients.  The  
simplest way to compute this is with percentage agreement (i.e., number of  
patients on which the observers agreed as a proportion of all patients studied).
Table 3.—Analysis of Questionnaire

A) Good Representation of Patient’s Status

<table>
<thead>
<tr>
<th></th>
<th>March ’92</th>
<th>January ’93</th>
</tr>
</thead>
<tbody>
<tr>
<td>RANGE</td>
<td>2.00</td>
<td>2.00</td>
</tr>
<tr>
<td>MEAN</td>
<td>3.00</td>
<td>1.88</td>
</tr>
<tr>
<td>MEDIAN</td>
<td>3.00</td>
<td>2.00</td>
</tr>
<tr>
<td>ST. DEV.</td>
<td>0.82</td>
<td>0.50</td>
</tr>
<tr>
<td>ST. ERROR</td>
<td>0.20</td>
<td>0.13</td>
</tr>
</tbody>
</table>

\[ p = 0.039 \text{ with } 2 \text{ DF} \]

B) Takes a Reasonable Time for Information Given

<table>
<thead>
<tr>
<th></th>
<th>March ’92</th>
<th>January ’93</th>
</tr>
</thead>
<tbody>
<tr>
<td>RANGE</td>
<td>3.00</td>
<td>2.00</td>
</tr>
<tr>
<td>MEAN</td>
<td>2.44</td>
<td>2.00</td>
</tr>
<tr>
<td>MEDIAN</td>
<td>2.00</td>
<td>2.00</td>
</tr>
<tr>
<td>ST. DEV.</td>
<td>0.72</td>
<td>0.52</td>
</tr>
<tr>
<td>ST. ERROR</td>
<td>0.18</td>
<td>0.13</td>
</tr>
</tbody>
</table>

\[ p = 0.039 \text{ with } 2 \text{ DF} \]
Table 3.--Analysis of Questionnaire (cont)

C) Sensitive to Reflect Patient's Changes

<table>
<thead>
<tr>
<th></th>
<th>March '92</th>
<th>January '93</th>
</tr>
</thead>
<tbody>
<tr>
<td>RANGE</td>
<td>3.00</td>
<td>2.00</td>
</tr>
<tr>
<td>MEAN</td>
<td>2.69</td>
<td>1.94</td>
</tr>
<tr>
<td>MEDIAN</td>
<td>2.50</td>
<td>2.00</td>
</tr>
<tr>
<td>ST. DEV.</td>
<td>1.08</td>
<td>0.68</td>
</tr>
<tr>
<td>ST. ERROR</td>
<td>0.27</td>
<td>0.17</td>
</tr>
</tbody>
</table>

\[ p = 0.010 \text{ with } 2 \text{ DF} \]

D) Gives a Good Representation of all Types of Disabilities

<table>
<thead>
<tr>
<th></th>
<th>March '92</th>
<th>January '93</th>
</tr>
</thead>
<tbody>
<tr>
<td>RANGE</td>
<td>3.00</td>
<td>3.00</td>
</tr>
<tr>
<td>MEAN</td>
<td>3.69</td>
<td>2.87</td>
</tr>
<tr>
<td>MEDIAN</td>
<td>4.00</td>
<td>3.00</td>
</tr>
<tr>
<td>ST. DEV.</td>
<td>0.87</td>
<td>0.88</td>
</tr>
<tr>
<td>ST. ERROR</td>
<td>0.22</td>
<td>0.22</td>
</tr>
</tbody>
</table>

\[ p = 0.004 \text{ with } 3 \text{ DF} \]

Again, the mean, median, standard deviation, standard error, and ANOVA was used (Table 4).
Table 4.--Inter-rater Reliability, Inter-disciplinary

A) Grooming - Patient scores compared for agreement

<table>
<thead>
<tr>
<th></th>
<th>NURSING</th>
<th>O.T.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RANGE</td>
<td>6.00</td>
<td>7.00</td>
</tr>
<tr>
<td>MEAN</td>
<td>4.50</td>
<td>6.39</td>
</tr>
<tr>
<td>MEDIAN</td>
<td>5.00</td>
<td>6.00</td>
</tr>
<tr>
<td>ST. DEV.</td>
<td>1.42</td>
<td>1.72</td>
</tr>
<tr>
<td>ST. ERROR</td>
<td>0.28</td>
<td>0.34</td>
</tr>
</tbody>
</table>

p = 0.443 with 1 DF
Friedman two-way ANOVA = 0.615
Kendall coefficient of concordance = 0.024
11.5% agreement, 88.5% disagreement

B) Eating - Patient scores compared for agreement

<table>
<thead>
<tr>
<th></th>
<th>NURSING</th>
<th>O.T.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RANGE</td>
<td>8.00</td>
<td>8.00</td>
</tr>
<tr>
<td>MEAN</td>
<td>7.39</td>
<td>7.12</td>
</tr>
<tr>
<td>MEDIAN</td>
<td>7.50</td>
<td>6.00</td>
</tr>
<tr>
<td>ST. DEV.</td>
<td>1.92</td>
<td>1.96</td>
</tr>
<tr>
<td>ST. ERROR</td>
<td>0.38</td>
<td>0.39</td>
</tr>
</tbody>
</table>

Pearson correlation = 1.09
p = 0.298 with 1 DF
46.2% agreement, 53.8% disagreement
Table 4.—Inter-rater Reliability, Inter-disciplinary (cont)

C) Transfers - Patient scores compared for agreement

<table>
<thead>
<tr>
<th></th>
<th>O.T.</th>
<th>P.T.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RANGE</td>
<td>6.00</td>
<td>7.00</td>
</tr>
<tr>
<td>MEAN</td>
<td>4.96</td>
<td>5.00</td>
</tr>
<tr>
<td>MEDIAN</td>
<td>5.00</td>
<td>5.00</td>
</tr>
<tr>
<td>ST. DEV.</td>
<td>1.37</td>
<td>1.59</td>
</tr>
<tr>
<td>ST. ERROR</td>
<td>0.260</td>
<td>0.300</td>
</tr>
</tbody>
</table>

Pearson correlation = 0.815  
\( p = 0.850 \) with 1 DF  
46.4% agreement, 53.6% disagreement
CHAPTER IV

RESULTS

Validity

The FCS shows that 46 of the 47 patients scored progress in a hierarchial fashion; 97.87% progress hierarchially, and 2.12% did not. The Pearson correlation coefficient was 0.8224; this shows a moderate to high correlation between admit and goal scores. A significant correlation was not found between discharge and goal scores (Table 2).

The content validity is shown by comparison of the Ver.1 to the Ver.3 with use of the questionnaire. A comparison of the results of the analysis between March 1992, Ver.1, and January 1993, Ver.3, has better agreement as to the statements and the questionnaire (Table 3). It also shows that there is no significant correlation between Ver.1 and Ver.3 by use of the Friedman two-way ANOVA, \( p = 0.000 \) (Table 3).

Reliability

Inter-rater reliability shows that in the category of GROOMING there is 11.5% agreement and 88.% disagreement between inter-disciplinary raters. There is not a significant correlation between raters as found by the two-way ANOVA. In the category of EATING, there is 46.2% agreement and 53.8%
disagreement with a 1.085 correlation with the Pearson correlation coefficient. TRANSFERS show a 46.4% agreement and 53.6% disagreement with a high correlation coefficient of 0.815 (Table 4).
CHAPTER V

DISCUSSION

The FCS developed by the St. Alexius inter-disciplinary rehab team shows good correlation between admit and goal points, showing that the admit scores do affect the goal points. This shows that establishing quantifiable goal scores upon admission is the correct way to decide ultimate goals and the proper program to attain the goal for the patient. The FCS shows that it does its job in scoring patients in a hierarchy fashion, which correctly shows the progress of the patient.

Through the use of the questionnaire, the Ver.3 FCS has good content validity. It shows that the professionals agree that this version does an accurate job of objectively measuring the functional abilities of the patient. It reflects that the professionals believe that it is sensitive to changes, but that they feel it rates certain diagnostic groups better than others.

The inter-rater reliability for the GROOMING category was shown to be poor. This could be due to the fact that it was inter-disciplinarily rated, and not rated within the same discipline. It could also be that nursing observes the patients twenty-four hours a day, where the other disciplines may only see the patient one and a half hours per day. Another problem that may have affected
the reliability is that scores were missing for certain individuals, and there may have been some discrepancy on the instructions between the different disciplines. An instruction sheet would enhance the reliability. Proper instruction of the professionals would be beneficial. The Cohens' Kappa would probably be a better tool for analyzing the data.

Summary

This study shows that the FCS Ver.3 has construct and content validity. It shows precision on the questionnaire relative to sensitivity to patient change. Inter-rater reliability is poor for the category of GROOMING, but appears to have moderate correlation for the other two categories studied.

Due to the small numbers studied, the incomplete scores, and inability of observers to follow instructions properly, it would be wise to consider this a pilot study, and to thus conduct further research on the Ver.3 FCS. This study does show that the St. Alexius FCS gives accurate objective functional scores for patients, and does measure what it purports to measure.
This includes not only continence but the ability to transfer and adequately clean oneself after a bowel movement.

LEVEL

9  NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area.

8  MINIMAL (INDEPENDENT): The person assessed has regular continent bowel movements and is also independent in transfers and hygiene.

7  MILD (MOSTLY INDEPENDENT): The person assessed has regular continent bowel movements using medications or treatments as needed, and is independent with transfers and/or hygiene with assistive devices.
   -If person assessed has colostomy, is able to do care of the colostomy independently.

6  MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed is aware of bowel movements but needs standby-by to minimum assistance with transfers and hygiene.
   -The person assessed needs set-up for colostomy cares.

5  MODERATE (MINIMUM ASSISTANCE): The person assessed is aware of bowel movements but may occasionally depend on nursing intervention for defecation or bowel continence is maintained by an established bowel program. Minimum assistance is needed for transfers and/or hygiene. Continence is maintained 75 to 90% of the time.
   -The person assessed needs verbal cueing for colostomy cares or bowel management program.

4  MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed is inconsistent in awareness of bowel movement or in communication of awareness. Continence may be maintained by a toileting schedule. Moderate assistance may be needed for transfers and/or hygiene. The person assessed is continent 50-75% of the time.
   -Instruction in colostomy care or bowel management program has begun and person assessed needs constant assistance during cares but takes an active part in the process.

3  SEVERE (MAXIMUM ASSISTANCE): The person assessed is dependent upon nursing measures for bowel management but incontinence is becoming less frequent. The person assessed may occasionally communicate need to be toileted. Maximum assistance of one person is needed for transfers and/or hygiene. Continence is maintained 25-50% of the time. The use of continence garments is necessary.
   -The person assessed is dependent on nursing staff for colostomy cares.

2  SEVERE-TO-PROFOUND (DEPENDENT): The person assessed is totally dependent upon nursing measures for bowel management and/or frequent incontinence is experienced. When toileting, maximum assistance of two people or more people is needed for transfers and/or hygiene. Continence is maintained 5-25% of the time. The use of continence garments is necessary.
   -The person assessed is dependent on nursing staff for colostomy cares.

1  PROFOUND (DEPENDENT): The person assessed has complete bowel incontinence. Continence is maintained 0-5% of the time.

0  UNABLE TO ASSESS: To be used when a person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
When scoring this element keep in mind that an individual need not meet all the criteria listed at a level. Because of the many different bladder management techniques possible, several different descriptions are given, find the section of a particular level that best describes the client being evaluated.

LEVEL

9  NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area.

8  MINIMAL (INDEPENDENT): The person assessed has consistent bladder continence without interventions. The person assessed is able to transfer, void and clean self after voiding without assistance, and is able to manage menstrual care independently.

7  MILD (MOSTLY INDEPENDENT): Continence is maintained by a self-bladder management program (intermittent catheterization, crede, indwelling catheter or urinary diversion), and the person assessed is able to use equipment needed for bladder control independently, this includes set-up, application, removal and clean-up.

6  MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed communicates need to void but needs minimum assistance with transfer and/or hygiene after voiding. The person assessed may need assistance with application of feminine hygiene materials. Continence is maintained 95% of the time.

5  MODERATE (MINIMUM ASSISTANCE): The person assessed communicates need to void but may experience urgency, frequency or stress incontinence. Minimum assistance is needed for transfers and/or hygiene. Minimum assistance is also needed for feminine hygiene. Continence is maintained 75-90% of the time.

- The person assessed has good understanding of techniques needed for self-bladder care but still may need some verbal cueing.

4  MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed is inconsistent in awareness of need to void or in communicating need to void. Continence may be maintained by a toileting schedule. Moderate assistance may be needed for transfers and/or hygiene. The person assessed is continent 50-75% of the time. -Instruction in self bladder care has begun and person assessed needs constant supervision and assistance.

3  SEVERE (MAXIMUM ASSISTANCE): The person assessed is dependent upon nursing measures for bladder management but incontinence is becoming less frequent. The person assessed may occasionally communicate need to void. Maximum assistance of one person is needed for transfers and/or hygiene and for feminine hygiene. Continence is maintained 25-50% of the time. -The use of continence garments is necessary.

2  SEVERE-TO-PROFOUND (DEPENDENT): The person assessed is dependent upon nursing measures for bladder management and/or frequent incontinence is experienced. When toileted maximum assistance of two people or more people is needed for transfer and/or hygiene. Continence is maintained 5-25% of the time.

-The person assessed depends on staff for intermittent catheterization program.

1  PROFOUND (DEPENDENT): The person assessed has complete bladder incontinence or catheter is in place. Continence is maintained 0-5% of the time.

0  UNABLE TO ASSESS: To be used when a person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
LEVEL
9  NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area.
8  MILD (INDEPENDENT): Skin is intact and not reddened at pressure points. Surgical site is dry and intact.
7  MILD-TO-MODERATE (MINIMUM ASSISTANCE): Skin is intact, but is reddened at pressure points. Skin has no blisters or small breaks but may have dryness that requires attention.
6  MODERATE (MINIMUM ASSISTANCE): Slight surgical drainage may be present and requires a surgical dressing. Staples or sutures are intact at surgical site. Reddened areas don't blanch.
5  MODERATE-TO-SEVERE (MODERATE ASSISTANCE): Skin breakdown is present but has no subcutaneous involvement. Moderate rash may be present. Moderate surgical drainage is present that requires a dressing. Skin has blisters and breaks (includes: skin tears, bruises, abrasions, etc.)
4  SEVERE (MAXIMUM ASSISTANCE): Skin breakdown is present and has subcutaneous tissue involvement, but skin breakdown has no muscle involvement. Staples or sutures are intact at surgical site, however, large amounts of drainage are present at site. A severe raw rash may be present on any body area.
3  SEVERE-TO-PROFOUND (DEPENDENT): Skin breakdown has muscle involvement, but breakdown has no bone involvement. Copious drainage or dehiscence of surgical site is present.
2  PROFOUND (DEPENDENT): Skin breakdown has bone involvement.
1  UNABLE TO ASSESS: To be used when a person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
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PAIN

LEVEL

9 NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area.

8 MINIMAL (INDEPENDENT): The person assessed has no functional limitation as a result of pain and displays no pain behavior.

7 MILD (MOSTLY INDEPENDENT): The person assessed has no functional limitations as a result of pain or displays no pain behavior, control techniques may be used.

6 MILD-TO-MODERATE (MINIMUM ASSISTANCE): Pain is reported as a concern by the person assessed but control techniques are independently, routinely and appropriately applied. The person assessed is able to pursue activities with some adjustments relative to demands.

5 MODERATE (MINIMUM ASSISTANCE): Pain is reported as a concern by the person assessed but is using control techniques with cueing - pursues many activities with some adjustments relative to demands.

4 MODERATE-TO-SEVERE (MODERATE ASSISTANCE): Pain and/or pain behavior do not limit activities of daily living (ADLs); however, social and vocational activities may be limited.

3 SEVERE (MAXIMUM ASSISTANCE): Pain and/or pain behaviors at times compromise ADL's and limit social and vocational activities.

2 SEVERE-TO-PROFOUND (DEPENDENT): Pain and/or pain behaviors are severely compromising personal, social, and economic adjustment on a daily basis; may include constant use of narcotic drugs to control pain.

1 PROFOUND (DEPENDENT): The person assessed demonstrates excessive pain behaviors and/or is pre-occupied with pain to the extent that they are unable to focus on other issues.

0 UNABLE TO ASSESS: To be used when a person assessed has not been seen, is transferred or dies before being seen or when a necessary evaluation process has not been completed prior to coding the person assessed.
PROGRAM EDUCATION

When scoring this element, refer to the Patient/Family Education Check List for the areas to consider.

LEVEL
9 NO PROBLEM NOTED/NOT APPLICABLE: The person assessed shows and demonstrates complete understanding of deficits and in the management of all self-care activities on admission.
8 MINIMAL (INDEPENDENT): The person assessed understands deficits fully and can perform self-care activities independently.
7 MILD (MOSTLY INDEPENDENT): The person assessed understands deficits and can manage self-cares but requires assistive equipment.
6 MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed understands deficits and performs self-care activities but requires verbal cues, and may require standby supervision and/or set-up of equipment.
5 MODERATE (MINIMUM ASSISTANCE): The person assessed understands deficits and performs self-cares skills but requires minimal physical assistance to complete tasks.
4 MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed understands deficits and is performing self-care skills but requires moderate physical assistance to complete the tasks.
3 SEVERE (MAXIMUM ASSISTANCE): The person assessed is beginning to understand deficits and is willing to perform one task in self-care management of condition with maximum assistance.
2 SEVERE-TO-PROFOUND (DEPENDENT): The person assessed is showing interest in management of self-care and in what is being taught.
1 PROFOUN (DEPENDENT): The person assessed does not perform any self-care tasks and shows no interest in learning or person assessed is not able to comprehend instruction at this time.
0 UNABLE TO ASSESS: To be used when a person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
SAFETY
An index of person assessed’s ability to safely be alone.

LEVEL

9  NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area.

8  MINIMAL (INDEPENDENT): Some slight deficits in cognition/judgment may be noted, but person assessed is safe in home environment, including higher level skills (i.e. cooking). Minor errors in judgment and impulsivity have no social consequences or impact on safety.

7  MILD (MOSTLY INDEPENDENT): The person assessed is safe at home during basic ADL activities, but needs supervision for higher level skills (e.g. bathing, cooking, etc.), but person assessed has good understanding of limitations and will not attempt higher level skills without assist. At this level person assessed could be left unattended for long periods of time.

6  MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed at this level would need supervision for basic skills (e.g., toileting, dressing, mobility). The person assessed has enough awareness of situation to be left alone for short periods of time (up to one hour) if positioned comfortably in bed, chair, etc.

5  MODERATE (MINIMUM ASSISTANCE): The person assessed may need just occasional cueing for safety, but awareness of condition is such that person assessed cannot be left alone unsupervised.

4  MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed requires frequent supervision and redirection. The person assessed, at this level, however accepts supervision readily without much resistance.

3  SEVERE (MAXIMUM ASSISTANCE): The person assessed requires constant supervision and may need some physical redirection with resistance to supervision or limitations sometimes noted. Physical restraints may be needed for short periods.

2  SEVERE-TO-PROFOUND (DEPENDENT): The person assessed is very impulsive, often needs physical redirection and may often be resistive to limitations. Thus, person assessed may have to be restrained at most times.

1  PROFOUND (DEPENDENT): At this level, alertness is decreased such that restraint is not needed. In future as alertness increases suspect that higher level of supervision may be needed.

0  UNABLE TO ASSESS: To be used when a person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
ORIENTATION/MEMORY

The ability to store, process and retrieve information, serving as an index of an individual's ability to effectively cope with his/her environment. Ascending order for measurement of orientation is person, location and time (day and date).

LEVEL

9 NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area.

8 MINIMAL (INDEPENDENT): The person assessed is oriented times three with environmental (calendar, clock, etc.) cueing. Their processing rate may remain somewhat slow. Shows carryover and does not require supervision.

7 MILD (MOSTLY INDEPENDENT): The person assessed is oriented times three with environmental cues or cueing. Their processing rate remains slow relative to length, complexity, and rate of presentation. Shows carryover but may periodically experience problems retrieving information. Does not require supervision.

6 MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed is oriented times three with maximum cueing. Their processing rate remains slow relative to length, complexity and rate of presentation. Shows carryover but relies on self-cueing or compensatory strategies. May require supervision.

5 MODERATE (MINIMUM ASSISTANCE): The person assessed is oriented times two with cueing. Their processing rate is slow relative to length, complexity, and rate of presentation. Shows carryover but needs reminders. May require supervision.

4 MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed is oriented times two with maximum cueing. Their processing rate is slow relative to length, complexity and rate of presentation. Fails to show carryover even with reminders. Requires supervision.

3 SEVERE (MAXIMUM ASSISTANCE): The person assessed is oriented times one with cueing. Processes information about self and immediate environment but fails to show carryover. Requires supervision.

2 SEVERE-TO-PROFOUND (DEPENDENT): The person assessed is oriented times one with maximum cueing. Processes information about self but fails to show carryover. Requires supervision.

1 PROFOUND (DEPENDENT): Unable to assess because person assessed cannot respond.

0 UNABLE TO ASSESS: To be used when a person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
AUDITORY AND/OR READING COMPREHENSION

The ability to understand input either by listening to or reading the information.

LEVEL

9 NO PROBLEM NOTED/NOT APPLICABLE: This code is to be used at admission to indicate that a person assessed is functioning within normal limits in this area.

8 MINIMAL (INDEPENDENT): Person assessed comprehends abstract and complex paragraph length material with 80% accuracy, given the ability to examine the written material

7 MILD (MOSTLY INDEPENDENT): The person assessed follows three-step verbal or written directions with 80% accuracy.

6 MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed follows two-step verbal or written directions with 80% accuracy given minimal cues.

5 MODERATE (MINIMUM ASSISTANCE): The person assessed follows one-step verbal or written directions and responds to concrete "yes/no" questions with 50-80% accuracy given cues.

4 MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed follows one-step verbal or written directions and responds to concrete "yes/no" questions with <50% accuracy given cues.

3 SEVERE (MAXIMUM ASSISTANCE): The person assessed follows whole body commands and responds to personally relevant "yes/no" questions in verbal or written form with 50-80% accuracy given cues.

2 SEVERE-TO-PROFOUND (DEPENDENT): The person assessed follows whole body commands and responds to personally relevant "yes/no" questions in verbal or written form with <50% accuracy given maximum cueing.

1 PROFOUND (DEPENDENT): Unable to follow whole body commands even with maximum cueing.

0 UNABLE TO ASSESS: To be used when a person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
VERBAL AND/OR WRITTEN EXPRESSION

The individual's ability to express themselves either in verbal or written form.

LEVEL

9  NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that the person assessed is functioning with normal limits in this area.

8  MINIMAL (INDEPENDENT): Communicates at a conversation level in verbal or written form. Hesitation may be noted with abstract material. May require environmental cues.

7  MILD (MOSTLY INDEPENDENT): Imitates or produces sentences in verbal or written form. Hesitations may be noted. Aware of errors and able to self-correct given minimal cues.

6  MILD-TO-MODERATE (MINIMUM ASSISTANCE): Imitates or produces phrases or short sentences in verbal or written form. Hesitations may be noted. Aware of errors and able to self-correct given minimal cues.

5  MODERATE (MINIMUM ASSISTANCE): Imitates or produces phrases in verbal or written form. Word finding difficulty noted. Responds to concrete tasks. Aware of errors but unable to self-correct even given cues.

4  MODERATE-TO-SEVERE (MODERATE ASSISTANCE): Imitates or produces word-to-phrase length material in verbal or written form. Word finding difficulty. Aware of errors, but unable to self-correct even given maximum cues.

3  SEVERE (MAXIMUM ASSISTANCE): Imitates or produces words in verbal or written form. Jargon may be prevalent. Unaware of errors and unable to self-correct even with cues.

2  SEVERE-TO-PROFOUND (DEPENDENT): Imitates or produces oral movements and words in verbal or written form. Automatic speech may be noted. Jargon prevalent. Unaware of errors and unable to self-correct even with maximum cues.

1  PROFOUND (DEPENDENT): Unable to imitate or produce oral movements. Jargon prevalent. No meaningful verbal output even with maximum cues.

0  UNABLE TO ASSESS: To be used when a person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
INTELLIGIBILITY

The level at which an individual's speech can be understood by a listener.

LEVEL

9  NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area.

8  MINIMAL (INDEPENDENT): The person assessed is 90-100% intelligible in conversation when the topic is unknown. Articulation is intelligible and production fluent.

7  MILD (MOSTLY INDEPENDENT): The person assessed is 80-90% intelligible with the topic unknown. Imitates or produces sentence length material. Articulation is intelligible and production primarily fluent.

6  MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed is 70-80% intelligible with the topic unknown. Imitates or produces phrase-to-short sentence length material. Articulation is intelligible and production primarily fluent.

5  MODERATE (MINIMUM ASSISTANCE): The person assessed is 60-70% intelligible with the topic known. Imitates or produces phrase length material. Articulation is intelligible and production primarily dysfluent but closely approximates the target.

4  MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed is 45-60% intelligible with the topic known. Imitates or produces word-to-phrase length material. Articulation is unintelligible and production primarily dysfluent.

3  SEVERE (MAXIMUM ASSISTANCE): The person assessed is 30-45% intelligible with the topic known. Imitates or produces words. Articulation is unintelligible and production dysfluent but closely approximates the target.

2  SEVERE-TO-PROFOUND (DEPENDENT): The person assessed is 15-30% intelligible with the topic known. Imitates or produces oral movements and words. Articulation is unintelligible and production dysfluent.

1  PROFOUND (DEPENDENT): The person assessed is 0-15% intelligible, and unable to imitate or produce oral movements. Articulation is unintelligible, production non-productive and rarely approximates the target.

0  UNABLE TO ASSESS: To be used when a person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
SWALLOWING

The ability to chew, manipulate and swallow different types of food consistencies. Results of swallow study, oral intake and dietary consistency might also be considered.

LEVEL

9  NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area.

8  MINIMAL (INDEPENDENT): Very slight deficits in chewing or swallowing, but person assessed able to drink and eat normal food consistencies with adequate oral intake.

7  MILD (MOSTLY INDEPENDENT): Mild deficit noted, requiring some dietary modification, but person assessed has good understanding of limitations and oral intake is adequate.

6  MILD-TO-MODERATE (STAND-BY ASSISTANCE): Person assessed has mild swallowing/feeding deficit and person assessed needs some prompting for safety in swallowing.

5  MODERATE (MINIMUM ASSISTANCE): The person assessed has mild to moderate swallowing problems and is learning swallowing techniques such that occasional supervision and cueing are needed.

4  MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed has mild to moderate swallowing problems, but needs frequent supervision to learn new techniques and for safety.

3  SEVERE (MAXIMUM ASSISTANCE): The person assessed has moderate to severe swallowing problems. The person assessed takes some food orally under direct supervision, may need supplemental feedings.

2  SEVERE-TO-PROFOUND (DEPENDENT): The person assessed has severe swallowing problems. The person assessed being tube fed, but some oral stimulation being started as part of therapy session only.

1  PROFOUND (DEPENDENT): The person assessed's alertness/swallowing is unsafe for oral feedings and is thus not to be fed orally (NPO) or tube fed.

0  UNABLE TO ASSESS: To be used when a person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
LEVEL

9 NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area.

8 MINIMAL (INDEPENDENT): The person assessed is independent in all eating activities without adaptive devices.

7 MILD (MOSTLY INDEPENDENT): The person assessed is independent in eating with assistive devices and is independent in applying and using those devices.

6 MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed can complete all eating activities with cueing and/or set-up. This may include cues to use an assistive device, compensate for field cut, and/or neglects or pocketing.

5 MODERATE (MINIMUM ASSISTANCE): The person assessed needs minimal physical assist (other than with cueing) to complete meal.

4 MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed can actively participate in eating, but requires moderate physical assistance which may include cueing. Increased assistance may be needed at end of meal due to fatigue.

3 SEVERE (MAXIMUM ASSISTANCE): The person assessed participates throughout the entire meal, but requires constant maximal physical assistance and/or constant cueing throughout the meal.

2 SEVERE-TO-PROFOUND (DEPENDENT): The person assessed is able to initiate eating activities, but is unable to sustain more than three or four attempts due to physical or cognitive deficits.

1 PROFOUND (DEPENDENT): The person assessed is unable to perform any part of activity. At this level, person assessed is getting supplemental feedings.

0 UNABLE TO ASSESS: To be used when a person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
UPPER LIMB USAGE

Functional usage of the extremity is the primary consideration in assignment of a level. Use of an adaptive device is permissible to achieve these levels. In this scale, 50% of normal is considered a fair grade muscle. Score refers to most involved arm.

LEVEL

9  NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area.

8  MINIMAL (INDEPENDENT): Extremity is utilized normally in all functional activities. Extremity has normal ROM, strength and coordination.

7  MILD (MOSTLY INDEPENDENT): Full functional use is only slightly limited and/or slight deficits in strength, ROM or coordination are noted.

6  MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed utilizes the extremity for 50-75% of the task and/or extremity has 50-75% of normal strength, ROM or coordination, or arthritic/orthopedic involvement mildly affects function (e.g., person assessed has difficulty with dressing due to shoulder/hand involvement but can complete independently, although with difficulty.)

5  MODERATE (MINIMUM ASSISTANCE): The person assessed utilizes the extremity in gross motor activities. The person assessed utilizes the extremity for 25-50% of the task and/or the extremity has 25-50% of normal strength, ROM or coordination, or arthritic/orthopedic involvement moderately affects function (e.g., involvement limits independence in some areas, although independence may be achieved with adaptive equipment.)

4  MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed utilizes the extremity for 25% or less of the task and/or extremity has 25% or less of normal strength, ROM or coordination, or arthritic/orthopedic involvement severely affects function (e.g., involvement limits independence in many areas.)

3  SEVERE (MAXIMUM ASSISTANCE): The extremity is used as a stabilizer spontaneously.

2  SEVERE-TO-PROFOUND (DEPENDENT): The extremity may be used as a stabilizer if prompted.

1  PROFOUND (DEPENDENT): The extremity is completely non-functional.

0  UNABLE TO ASSESS: To be used when a person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
BATHING

To include person assessed's ability to transfer in/out of shower/bath and ability
to stand, stoop, etc. during activity. Also to include person assessed's ability
to clean oneself during bath/shower.

LEVEL

9 NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate
that a person assessed is functioning within normal limits in this area.

8 MINIMAL (INDEPENDENT): Able to transfer and bathe independently. The person
assessed able to set self up independently.

7 MILD (MOSTLY INDEPENDENT): The person assessed is independent with transfers
and bathing using adaptive equipment.

6 MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed only needs
standby assist for transfer and/or needs set-up or slight cueing to bathe
safely or completely.

5 MODERATE (MINIMUM ASSISTANCE): The person assessed needs some minimal
physical assist in transfer and/or minimal assist for bathing (e.g., may need
assist to wash feet, back or uninvolved U/E). May need occasional cueing to
maintain balance or wash completely.

4 MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed needs moderate
assist for transfer and/or needs constant cueing, and/or frequent minimal
assist to bathe safely and completely.

3 SEVERE (MAXIMUM ASSISTANCE): The person assessed needs maximal assist for
transfer and/or needs some moderate assist to bathe safely and completely.

2 SEVERE-TO-PROFOUND (DEPENDENT): The person assessed must use wheeled shower
chair due to safety concerns and needs maximum assist to transfer onto shower
chair. Person assessed needs maximum assist throughout to bathe safely and
completely and/or person assessed can assist some in bed bath.

1 PROFOUND (DEPENDENT): The person assessed appropriate only for bed bathing
due to safety concerns. The person assessed does not assist with bed
bathing.

0 UNABLE TO ASSESS: To be used when the person assessed has not been seen, is
transferred or dies before being seen, or when a necessary evaluation process
has not been completed prior to coding the person assessed.
GROOMING

To include the person assessed's ability to wash face and hands, clean teeth, comb hair and shave.

LEVEL

9  NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area.

8  MINIMAL (INDEPENDENT): The person assessed performs all grooming activities independently without assistive devices.

7  MILD (MOSTLY INDEPENDENT): The person assessed is able to complete all activities with assistive devices, but is able to use assistive devices independently.

6  MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed is able to complete all the activities with set-up and very minimal cueing to complete task. No physical assist needed.

5  MODERATE (MINIMUM ASSISTANCE): The person assessed requires occasional verbal cueing and/or very minimal physical assist to complete.

4  MODERATE-TO-SEVERE (MODERATE ASSISTANCE): Frequent verbal cueing and/or moderate physical assist needed to complete tasks.

3  SEVERE (MAXIMUM ASSISTANCE): Maximal physical assist needed to complete.

2  SEVERE-TO-PROFOUND (DEPENDENT): The person assessed attempts grooming tasks, but is unable to complete any of the activities. May need hand over hand guidance.

1  PROFOUND (DEPENDENT): The person assessed is dependent for all grooming activities.

0  UNABLE TO ASSESS: To be used when the person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
To include donning and doffing all the usual and customary articles of clothing (including braces, splints, etc. but excluding TEDS hose.)

LEVEL

9 NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area.

8 MINIMAL (INDEPENDENT): The person assessed performs the dressing activity independently without assistive devices.

7 MILD (MOSTLY INDEPENDENT): The person assessed performs the dressing activity independently with assistive devices.

6 MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed can complete all dressing activities with occasional cues, set-up, and/or occasional physical assist. Assistance is primarily needed with fasteners or donning/doffing one item.

5 MODERATE (MINIMUM ASSISTANCE): The person assessed can complete dressing activities, but minimal physical assistance is needed throughout the task.

4 MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed is able to independently complete one-half of all dressing, including upper extremities, lower extremities, or a combination of both.

3 SEVERE (MAXIMUM ASSISTANCE): The person assessed is learning dressing skills and may be able to start an item but requires another person to complete the activity. The person assessed needs direct assist throughout to complete tasks.

2 SEVERE-TO-PROFOUND (DEPENDENT): The person assessed assists with dressing (rolling, lifting-limbs) but is unable to complete any part of the activity.

1 PROFOUND (DEPENDENT): The person assessed is unable to perform any part of the activity.

0 UNABLE TO ASSESS: To be used when the person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
MEAL PREPARATION

To include an estimate of the person assessed's ability to perform usual and customary duties of meal preparation (e.g., organization of cooking area, transport of items to table, actual cooking, and safe operation of appliances, clean-up and meal planning.)

LEVEL

9  NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area.

8  MINIMAL (INDEPENDENT): The person assessed is independent with all customary roles and functions in light homemaking activities.

7  MILD (MOSTLY INDEPENDENT): The person assessed is independent in light cooking tasks but requires assistance with meal planning and/or may need assistive devices to achieve independence.

6  MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed performs preparation and clean-up of simple meal with set-up only. This includes persons receiving Meals-on-Wheels.

5  MODERATE (MINIMUM ASSISTANCE): The person assessed performs preparation and clean-up of simple meals and other light homemaking tasks with verbal/standby supervision.

4  MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed performs preparation and clean-up of simple meals with occasional, physical assistance (e.g., due to deficits in balance, coordination, endurance.)

3  SEVERE (MAXIMUM ASSISTANCE): Person assessed is participating in light meal preparation tasks but requires direct, constant, physical assist to complete a task.

2  SEVERE-TO-PROFOUND (DEPENDENT): The person assessed has potential for participation in meal preparation tasks, however, it is not appropriate to formally assess at this time (e.g., due to contradiction in regards to individual precautions: orthopedic, ambulatory).

1  PROFOUND (DEPENDENT): The person assessed is unable to perform any meal preparation tasks due to significant physical and/or cognitive deficits.

0  UNABLE TO ASSESS: To be used when the person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
TRANSFERS

This includes mat, bed, chair and car transfers, but not transfers into and out of the bath/shower. Score in each discipline should refer to the most difficult transfer situation for person assessed.

LEVEL

9 NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area.

8 MINIMAL (INDEPENDENT): The person assessed is able to perform transfer activities independently without assistive devices.

7 MILD (MOSTLY INDEPENDENT): The person assessed is able to perform transfer activities independently with assistive devices.

6 MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed requires only verbal or standby assistance for transfer activity. For example, the person assessed needs someone present during performance of the activity because of fatigue, occasional loss of balance or other factors may at times make independent transfer unsafe. This may or may not include the use of assistive devices.

5 MODERATE (MINIMUM ASSISTANCE): The person assessed requires minimal physical assistance of one person for transfer activity. For example, the person assessed may need physical assistance for positioning of legs, footrests or adaptive devices, etc.

4 MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed needs a moderate amount of assistance by one other person. For example, physical effort must be exerted by the assisting person, but the person assessed can effectively assist in the transfer activity.

3 SEVERE (MAXIMUM ASSISTANCE): The person assessed, while participating in the activity, needs the maximum assistance of one or two persons in transfers. For example, the assisting person can transfer the person assessed alone, but needs to be physically turned for pivoting, may require significant effort by the assisting person to come in a sitting or standing position, or may have to lean on assisting person; if balance is lost, it cannot be regained due to weakness or poor equilibrium.

2 SEVERE-TO-PROFOUND (DEPENDENT): The person assessed participates in the activity, but continues to require the assistance of two or more persons to complete a transfer. Use of a mechanical lifting device may be required.

1 PROFOUND (DEPENDENT): The person assessed does not perform any part of transfer activity and requires assistance of two or more persons to complete a transfer.

0 UNABLE TO ASSESS: To be used when the person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
**LOWER EXTREMITY FUNCTION**

Functional usage of the involved lower extremity is the primary consideration in assignment of a level. Use of an adaptive device is permissible to achieve these levels. In this scale, 50% of normal is considered a fair grade muscle. Score given refers to the more involved lower extremity. Weight-bearing for purposes of assessment refers to the ability of person assessed to support their weight, not orthopedic restrictions due to surgery and/or injury.

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area.</td>
</tr>
<tr>
<td>8</td>
<td>MINIMAL (INDEPENDENT): The involved lower extremity is utilized normally in all functional activities. The involved lower extremity has normal ROM, strength and coordination.</td>
</tr>
<tr>
<td>7</td>
<td>MILD (MOSTLY INDEPENDENT): Full functional use is only slightly limited and/or the involved lower extremity has slight deficits in strength, ROM or coordination.</td>
</tr>
<tr>
<td>6</td>
<td>MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed utilizes the involved lower extremity to support full weight and/or the lower extremity has 50-75% of normal strength, ROM and coordination.</td>
</tr>
<tr>
<td>5</td>
<td>MODERATE (MINIMUM ASSISTANCE): The person assessed utilizes the involved lower extremity to support 25-50% of weight or extremity has 25-50% of normal strength, ROM and coordination.</td>
</tr>
<tr>
<td>4</td>
<td>MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed utilizes the involved lower extremity of 25% or less of weight supporting and/or the involved lower extremity has 25% or less of normal strength, ROM and coordination.</td>
</tr>
<tr>
<td>3</td>
<td>SEVERE (MAXIMUM ASSISTANCE): The involved lower extremity can be used as a mini-assist with prompting or facilitation and can maintain weight bearing after set-up. Has 10% or less of normal strength, ROM and coordination.</td>
</tr>
<tr>
<td>2</td>
<td>SEVERE-TO-PROFOUND (DEPENDENT): The involved lower extremity can be used as a mini-assist, i.e. for balance, if continuously assisted and/or has 10% of less of normal strength, ROM and/or coordination.</td>
</tr>
<tr>
<td>1</td>
<td>PROFOUND (DEPENDENT): The involved lower extremity is completely non-functional. The involved lower extremity has no voluntary movement, and cannot accept weight without assistance.</td>
</tr>
<tr>
<td>0</td>
<td>UNABLE TO ASSESS: To be used when the person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.</td>
</tr>
</tbody>
</table>
LOWER EXTREMITY SENSATION/PROPRIOCEPTION

Interpretation of superficial pain, proprioception and light touch will be assessed to determine assignment of level.

NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area. The involved extremities have normal sensation of superficial pain, light touch and proprioception.

MINIMAL (INDEPENDENT): Testing shows person assessed has intact sensation and proprioception in both lower extremities.

MILD (MOSTLY INDEPENDENT): The person assessed may have mild impairment in sensation and/or proprioception but is able to compensate and function normally.

MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed has deficits in sensation and/or proprioception which minimally impair person assessed's functional activity. May require occasional verbal cueing to attend to involved extremities.

- The person assessed has profound loss of proprioception and sensation but is able to compensate with good skills for protecting deficit limb(s) and general position awareness.

MODERATE (MINIMUM ASSISTANCE): The person assessed has impairment in sensation and/or proprioception which moderately affects person assessed's functional activity. Frequent verbal cueing is required to attend to involved extremities.

- The person assessed has profound loss of proprioception and sensation and is aware of skills necessary to protect deficit limb(s) and spontaneously demonstrates these skills 75% of the time.

MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed has impairment in sensation and/or proprioception which moderately affects person assessed's functional activity. Verbal and physical cues are required to attend to involved extremities.

- The person assessed has profound loss of proprioception and sensation and is beginning to learn compensatory techniques to protect the limb(s) and spontaneously demonstrates these skills 50% of the time.

SEVERE (MAXIMUM ASSISTANCE): The person assessed has impairment in sensation and/or proprioception which maximally affects functional activity. The person assessed requires constant verbal and physical cues to attend to involved extremities.

SEVERE-TO-PROFOUND (DEPENDENT): The person assessed's sensation and/or proprioception is functionally absent. Does not express denial of involved extremities.

PROFOUND (DEPENDENT): The person assessed's sensation and/or proprioception is functionally absent and person assessed displays denial of involved extremities.

UNABLE TO ASSESS: To be used when the person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
Functional bed mobility is the primary consideration in assignment of a level.

NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area. This includes rolling, bridging, scooting supine, and moving supine to sitting to supine.

MINIMAL (INDEPENDENT): The person assessed is able to perform bed mobility skills independently without use of side rails.

MILD (MOSTLY INDEPENDENT): The person assessed is able to perform bed mobility skills independently with use of side rails.

MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed requires only verbal or standby assistance for rolling, bridging, scooting supine and moving supine to and from sitting.

MODERATE (MINIMUM ASSISTANCE): The person assessed requires minimal assistance of one person for bed mobility skills (e.g., may need physical assistance for positioning of legs or for initiation of movement).

MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed needs a moderate amount of assistance of one person in bed mobility skills (e.g., physical effort must be exerted in assistance, but the person assessed is able to effectively assist in the activity of rolling, scooting supine, bridging, and moving supine to and from sitting).

SEVERE (MAXIMUM ASSISTANCE): The person assessed, while participating in the activity, needs maximum assistance of one person in bed mobility skills (e.g., the assisting person must physically turn the person assessed for rolling, physically move person assessed during supine scooting or physically assist in bridging, or assist at trunk and lower extremities when moving supine to sitting).

SEVERE-TO-PROFOUND (DEPENDENT): The person assessed participates in the activity, but requires maximum assistance of two people to complete all bed mobility.

PROFOUND (DEPENDENT): The person assessed is not capable of assisting or participating in bed mobility skills.

UNABLE TO ASSESS: To be used when the person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
Wheelchair Activities

ERS to the person assessed's ability to propel the chair, perform chair adjustment (e.g., rest, arm rest, application of breaks, etc.) and position self, and will apply only to individuals projected to be wheelchair users for a significant amount of time at discharge.

EL NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area or person assessed is expected to be functional ambulator at discharge.

MINIMAL (INDEPENDENT): The person assessed is independent in all wheelchair activities, and is able to perform self-positioning, wheelchair adjustments and negotiation of architectural barriers including curbs, or has achieved functional ambulation status.

MILD (MOSTLY INDEPENDENT): The person assessed is independent in the majority of wheelchair activities including self-positioning and wheelchair adjustment, but requires assistance for more difficult tasks such as negotiating curbs and high degrees of incline. This may also apply to the person assessed who is a functional ambulator but might, because of poor endurance, use the wheelchair when out in the community.

MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed functionally propels wheelchair over 1000 feet, including uneven terrains and a five degree incline. Requires assistance with wheelies, curbs and architectural barriers.

MODERATE (MINIMUM ASSISTANCE): The person assessed functionally propels wheelchair over 300 feet.

MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed functionally propels wheelchair between 150-300 feet.

SEVERE (MAXIMUM ASSISTANCE): The person assessed functionally propels the wheelchair short distances. Assistance may be required for wheelchair adjustments and self-positioning.

SEVERE-TO-PROFOUND (DEPENDENT): The person assessed propels the wheelchair, but not in a functional manner. The person assessed may require assistance for wheelchair adjustments and self-positioning.

PROFOUND (DEPENDENT): The person assessed does not perform any wheelchair activity (self-positioning, wheelchair adjustment or propulsion).

UNABLE TO ASSESS: To be used when the person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
AMBLATION

NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area.

MINIMAL (INDEPENDENT): The person assessed is capable of independent ambulation for functional distances* without assistive devices, but may have a disturbed gait pattern that is not functionally limiting.

MILD (MOSTLY INDEPENDENT): The person assessed is capable of independent ambulation for functional distances* with assistive devices, or displays a moderate to major gait pattern abnormality.

MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed requires only verbal or standby assist for ambulation with or without an assistive device. (e.g., the individual needs someone present during ambulation because of fatigue, occasional loss of balance, or other factors which made independent gait unsafe.)

MODERATE (MINIMUM ASSISTANCE): The person assessed is capable of ambulation with or without assistive devices with minimal physical assistance of one person, or lacks endurance for functional distances.

MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed is capable of ambulating with or without assistive devices with moderate assistance of one person.

SEVERE (MAXIMUM ASSISTANCE): The person assessed, while participating in the activity, requires maximum assist of one to two people for balance, bracing or advancing of one or both lower extremities. This may or may not include the use of the parallel bars or assistive device.

SEVERE-TO-PROFOUND (DEPENDENT): The person assessed is capable of standing only with the assistance of one or more people and/or bracing one or both lower extremities and/or assistive devices.

PROFOUND (DEPENDENT): The person assessed is not capable of any mode of ambulation (may be able to tolerate tilt table).

UNABLE TO ASSESS: To be used when the person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.

*Functional distance is distance to meet activities of daily living (ADLs), recreational, and social needs.
NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area.

MINIMAL (INDEPENDENT): The person assessed is able to ascend or descend stairs a functional distance without a handrail and without an assistive device.

MILD (MOSTLY INDEPENDENT): The person assessed is able to ascend or descend stairs a functional distance with handrail and/or with an assistive device.

MILD-TO-MODERATE (MINIMUM ASSISTANCE): Needs only verbal cues or standby guarding for assist to ascend and descend stairs with a handrail with or without an assistive device. The person assessed may require verbal cues for advancement and placement of assistive device and/or lower extremities.

MODERATE (MINIMUM ASSISTANCE): The person assessed is able to ascend and descend stairs a functional distance with minimum assistance of one person and handrail (with or without assistive device) may continue to need minimum assistance and/or verbal guidance for advancement and placement of assistive device on lower extremities.

MODERATE-TO-SEVERE (MEDIUM ASSISTANCE): The person assessed is able to ascend and descend stairs a functional distance with moderate assistance of one person and handrail with or without assistive device (requires constant help to advance assistive device or place it properly).

SEVERE (MAXIMUM ASSISTANCE): The person assessed is able to ascend and descend stairs a functional distance with moderate assistance of two people and handrail with or without assistive device. Needs moderate assistance with positioning of assistive device, and/or lower extremities.

SEVERE-TO-PROFOUND (DEPENDENT): The person assessed is able to ascend and descend stairs functional distances or any form of stair climbing.

PROFOUND (DEPENDENT): The person assessed is not capable of ascending and descend stairs functional distances or any form of stair climbing.

UNABLE TO ASSESS: To be used when the person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
COMMUNITY REINTEGRATION

A functional ability to perform in the community, focusing on environmental and physical factors to include car transfers and mobility (either wheelchair or ambulation). The functional level is based on the most limiting factor, not all factors listed.

NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area. Able to independently function in all factors of the community on admission.

MINIMAL (INDEPENDENT): The person assessed is independent without supervision within a community setting, including unfamiliar situations.

MILD (MOSTLY INDEPENDENT): The person assessed responds independently to environmental and physical situations, but requires extra time, equipment or other compensatory techniques for performance in the community.

MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed responds to environmental and physical factors with only verbal cueing. The person assessed may require verbal cueing for proper use of adaptive equipment.

MODERATE (MINIMUM ASSISTANCE): The person assessed responds to the environmental and physical factors with minimal physical assistance. Minimal assistance of one person or maximal verbal cueing are required for proper utilization of adaptive equipment.

MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed responds to the environmental and physical factors with a moderate amount of assistance of one person. For example, physical effort must be exerted by the assisting person, but the person assessed can effectively assist in the transfer or mobility activity.

SEVERE (MAXIMUM ASSISTANCE): The person assessed responds to the environmental and physical factors by participating in the activity with the maximal assistance of one or two people.

SEVERE-TO-PROFOUND (DEPENDENT): The person assessed makes attempts to respond to environmental and physical factors, but continues to require the assistance of two or more people. The person assessed will require a wheelchair lift for transportation.

PROFOUND (DEPENDENT): No attempts to respond to environmental and physical factors after constant verbal and physical assist. The person assessed is not medically stable for community outing.

UNABLE TO ASSESS: To be used when the person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
LEISURE ACTIVITY SKILLS

This element assesses the functional ability of leisure activity skills; identifying, planning, following through with leisure lifestyle.

NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area.

MINIMAL (INDEPENDENT): The person assessed selects a leisure activity of interest and initiates involvement in that activity, independently utilizing leisure problem-solving techniques. The person assessed makes independent decisions about a leisure lifestyle, with demonstrated cognitive awareness of personal values and the benefits of leisure.

MILD (MOSTLY INDEPENDENT): The person assessed selects a leisure activity of interest and initiates involvement in that activity, independently utilizing leisure problem-solving techniques. The person assessed makes independent decisions about a leisure lifestyle, with demonstrated cognitive awareness of personal values and benefits of leisure. The person assessed may need assistive devices to participate in leisure activities.

MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed spontaneously elaborates on their own leisure history, demonstrating the ability to make decisions. The person assessed is able to select an activity of interest, requires verbal cueing times one to become involved in activity. The person assessed attempts to identify personal leisure values and benefits.

MODERATE (MINIMUM ASSISTANCE): The person assessed is beginning to elaborate on their own leisure history after prompting/questioning, and selects an activity of interest from those presented, and on occasion demonstrates the ability to problem solve in his/her leisure.

MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed is able to verbalize/identify leisure interests after leisure activity list is presented, and will select an activity of interest after activity choices are presented. The person assessed is able to engage in a chosen activity with verbal cues. The person assessed is beginning to verbalize/demonstrate problem-solving techniques after assist from therapist.

SEVERE (MAXIMUM ASSISTANCE): The person assessed is able to verbalize/identify leisure interests (responds with yes and no gestures), after leisure activity list is presented and engages in leisure activity chosen by therapist when verbal cues and hands-on assist is given.

SEVERE-TO-PROFOUND (DEPENDENT): The person assessed is unable to identify leisure interests, after assistance, but does make attempts to participate in leisure activities when continual assistance is given (verbal cues and hands on assist).

PROFOUND (DEPENDENT): The person assessed is comatose/semicomatose and/or unresponsive.

UNABLE TO ASSESS: To be used when the person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
COMMUNICATION/SOCIAL INTERACTION

is includes skills related to communication and participating with others in therapeutic (structured) and social (unstructured) situations. This represents how one deals with personal needs together with the needs of others.

NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area. The person assessed is able to initiate communication/social interaction appropriately with staff, other persons assessed, and family members.

MINIMAL (INDEPENDENT): Although initial deficits have been noted, the person assessed spontaneously initiates appropriate communication with staff, other persons assessed and family members after therapeutic intervention has been initiated.

MILD (MOSTLY INDEPENDENT): The person assessed interacts appropriately with staff, other persons assessed, and family members in social situations. The person assessed may take more than a reasonable time to adjust to a situation.

MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed requires supervision (e.g., monitoring, verbal cues, or coaxing), only under stressful or unfamiliar conditions.

MODERATE (MINIMUM ASSISTANCE): The person assessed interacts appropriately with staff, other persons assessed and family members in structured situations or modified environments.

MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed interacts appropriately with staff, other persons assessed and family members in structured situations or modified environments. The person assessed may take more than a reasonable time to adjust in the given situation.

SEVERE (MAXIMUM ASSISTANCE): The person assessed initiates communication in a structured setting, but requires frequent verbal cues to interact appropriately.

SEVERE-TO-PROFOUND (DEPENDENT): The person assessed makes attempts to communicate in a structured setting, after constant verbal cues and coaxing, but is unable to communicate needs effectively.

PROFOUND (DEPENDENT): The person assessed makes no attempts to communicate to staff, other persons assessed and family members, after constant verbal cues and coaxing.

UNABLE TO ASSESS: To be used when the person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
ACTIVITY TOLERANCE

The ability to independently remain active in leisure activity and endure every activity, signed or self-initiated, after participating in a minimum of two other therapy sessions.

NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area, and is independently able to remain actively involved for the duration of a selected activity.

MINIMAL (INDEPENDENT): The person assessed has achieved full function in this area after therapeutic intervention, and is able to endure and attend to every activity assigned or self-initiated.

MILD (MOSTLY INDEPENDENT): The person assessed is able to sustain 60 minutes of leisure activity, attends to activity independently, but fatigue may occasionally be a limiting factor.

MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed is able to sustain 45 minutes of leisure activity, with fatigue possibly limiting an activity.

MODERATE (MINIMUM ASSISTANCE): The person assessed is able to sustain 31 to 44 minutes of leisure activity, with fatigue being a limiting factor.

MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed is able to sustain 16 to 30 minutes of leisure activity, with fatigue being a limiting factor.

SEVERE (MAXIMUM ASSISTANCE): The person assessed is able to 11 to 15 minutes of leisure activity, with fatigue being a limiting factor.

SEVERE-TO-PROFOUND (DEPENDENT): The person assessed is able to 1 to 10 minutes of leisure activity, with constant verbal cues and hands-on assist to attend/concentrate to leisure activity.

PROFOUND (DEPENDENT): The person assessed is comatose or semicomatose and/or unresponsive, and makes no attempts to follow instruction.

UNABLE TO ASSESS: To be used when the person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
UNDERSTANDING OF DISABILITY

NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area.

MINIMAL (INDEPENDENT): The person assessed can express understanding of his/her current situation, changes imposed by the situation, and has realistic expectations for short and long term goals.

MILD (MOSTLY INDEPENDENT):

MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed can verbalize fairly realistic expectations for short term goals and start to follow through with discharge plans.

MODERATE (MINIMUM ASSISTANCE): The person assessed starts to express verbal understanding of his/her current limitations by making appropriate statements and asking pertinent questions to seek more information.

MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed can begin to identify current limitations and what that means to them practically. He/She continues to hold onto the belief that the disability is just temporary and things will return to "normal".

SEVERE (MAXIMUM ASSISTANCE): The person assessed denies current limitations and expects to return to "normal".

SEVERE-TO-PROFOUND (DEPENDENT):

PROFOUND (DEPENDENT): The person assessed is unable to communicate their feelings or understanding of their current situation.

UNABLE TO ASSESS: To be used when the person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area.

MINIMAL (INDEPENDENT): Family members express understanding of the person assessed's current situation and the changes imposed by the situation, and have realistic expectation for short and long term goals.

MILD (MOSTLY INDEPENDENT): Family members verbalize fairly realistic expectations for short-term goals and have started to follow through with discharge plans.

MILD-TO-MODERATE (MINIMUM ASSISTANCE): Family members vary in their level of understanding but continue to ask questions and support the person assessed.

MODERATE (MINIMUM ASSISTANCE): Family members express verbal understanding of the person assessed's current limitations by making appropriate statements and asking pertinent questions to seek more information.

MODERATE-TO-SEVERE (MODERATE ASSISTANCE): Family members have begun to identify current limitations and what that means practically. They continue to hold on to the belief that the disability is just temporary and things will return to "normal".

SEVERE (MAXIMUM ASSISTANCE): Family denies current limitations by repeatedly stating that they are temporary and the family expects the person assessed to return to "normal".

SEVERE-TO-PROFOUND (DEPENDENT):

PROFOUND (DEPENDENT): Family seems to have no information on the current situation or to what are reasonable expectations.

UNABLE TO ASSESS: To be used when the person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area.

MINIMAL (INDEPENDENT): The person assessed will return home, caring for self independently.

MILD (MOSTLY INDEPENDENT): The person assessed will return home with the support of outpatient services, home care services, and/or family assistance.

MILD-TO-MODERATE (MINIMUM ASSISTANCE):

MODERATE (MINIMUM ASSISTANCE): The person assessed will be discharged to a basic care, supervised living, or group home setting.

MODERATE-TO-SEVERE (MODERATE ASSISTANCE): The person assessed will return home totally dependent on a care-giver or 24-hour assistance/supervision.

SEVERE (MAXIMUM ASSISTANCE):

SEVERE-TO-PROFOUND (DEPENDENT): The person assessed is at a level of care needing discharge to a nursing home or swing bed setting.

PROFOUND (DEPENDENT): The person assessed was transferred to acute care floor, acute hospital, or other acute rehab facility.

UNABLE TO ASSESS: The person assessed died while they were on the Rehab Unit.
NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area.

MINIMAL (INDEPENDENT): The person assessed has health insurance (private or Medicare) or government program (Medicaid, Worker's Compensation or PHS).

MILD (MOSTLY INDEPENDENT):

MILD-TO-MODERATE (MINIMUM ASSISTANCE):

MODERATE (MINIMUM ASSISTANCE): The person assessed has health insurance with inadequate rehab benefits.

MODERATE-TO-SEVERE (MODERATE ASSISTANCE): Application for disability and/or government program is in progress.

SEVERE (MAXIMUM ASSISTANCE): The person assessed has no health insurance and needs to apply for Medicaid, disability or SSI.

SEVERE-TO-PROFOUND (DEPENDENT): The person assessed has no health insurance and does not qualify for government assistance.

PROFOUND (DEPENDENT): The person assessed has no health insurance or assets.

UNABLE TO ASSESS: To be used when the person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
PSYCHOLOGICAL ADJUSTMENT

This element refers to the psychological response in regards to the cognitive and physical impairments which may affect performance as it relates to maximizing functional capability.

NO PROBLEM NOTED/NOT APPLICABLE: This code is used at admission to indicate that a person assessed is functioning within normal limits in this area.

MINIMAL (DEPENDENT): The person assessed consistently demonstrates self-motivated behavior and coping skills, with infrequent disruption in performance due to severe stressors, e.g., marital discord, financial concerns, pain.

MILD (MOSTLY INDEPENDENT): The person assessed consistently exhibits self-motivated behavior, with infrequent interference in performance due to mild stressors, such as lack of motivation.

MILD-TO-MODERATE (MINIMUM ASSISTANCE): The person assessed generally exhibits self-motivated behavior, although such behavior may be temporarily compromised by failure experiences and feelings of loss.

MILD-TO-SEVERE (MINIMUM ASSISTANCE): Emotional reactions or cognitive deficits don't limit the person assessed's ability to participate in therapies, and the person assessed intermittently exhibits self-motivated behavior. For example, the person assessed occasionally takes a passive approach to rehab, but at times initiates goal-directed behavior.

MODERATE (MINIMUM ASSISTANCE): Emotional reactions or cognitive deficits occasionally limit the person assessed's ability to participate in therapies, and the person assessed exhibits self-motivated behavior on isolated occasions. For example, more than 50% of the time, the person assessed takes a passive approach to rehab, but at times will initiate goal-directed behavior.

MODERATE-TO-SEVERE (MINIMUM ASSISTANCE): Emotional reactions and/or cognitive deficits occasionally limit the person assessed's ability to actively participate most of the time (greater than 75%). However, with minimum staff prompting, the person assessed does demonstrate goal-directed behavior.

SEVERE (MAXIMUM ASSISTANCE): Emotional reactions and/or cognitive deficits limit the person assessed's ability to actively participate most of the time (greater than 75%). However, with minimum staff prompting, the person assessed does demonstrate goal-directed behavior.

SEVERE-TO-PROFOUND (DEPENDENT): Emotional reactions and/or cognitive deficits severely limit rehab efforts. The person assessed is dependent on staff prompting to perform goal-directed behavior.

PROFOUND (DEPENDENT): Emotional reactions and/or cognitive deficits are so severe that rehab efforts are not possible.

UNABLE TO ASSESS: To be used when the person assessed has not been seen, is transferred or dies before being seen, or when a necessary evaluation process has not been completed prior to coding the person assessed.
APPENDIX B

Functional Classification Scores
<table>
<thead>
<tr>
<th>PARAMETERS</th>
<th>GOALS</th>
</tr>
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<tbody>
<tr>
<td>Bowel Management</td>
<td></td>
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<tr>
<td>Bladder Management</td>
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<tr>
<td>Skin Management</td>
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<tr>
<td>Pain</td>
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<tr>
<td>Patient Education</td>
<td></td>
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<tr>
<td>Safety</td>
<td></td>
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<tr>
<td>Orientation/Memory</td>
<td></td>
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<tr>
<td>Auditory and/or Reading Comprehension</td>
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<tr>
<td>Verbal and/or Written Expression</td>
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<tr>
<td>Intelligibility</td>
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<tr>
<td>Swallowing</td>
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<tr>
<td>Eating</td>
<td></td>
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<tr>
<td>Upper Limb Usage</td>
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<tr>
<td>Bathing</td>
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<tr>
<td>Grooming</td>
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<tr>
<td>Dressing</td>
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<tr>
<td>Meal Preparation</td>
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<td>Transfers</td>
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<tr>
<td>Lower Extremity Function</td>
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<tr>
<td>Lower Extremity Sensation/Proprioception</td>
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<tr>
<td>Bed Mobility</td>
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<td>Wheelchair Activities</td>
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<td>Ambulation</td>
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<tr>
<td>Stairs</td>
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<tr>
<td>Community Reintegration</td>
<td></td>
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<tr>
<td>Leisure Activity Skills</td>
<td></td>
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<tr>
<td>Communication/Social Interaction</td>
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<td>Activity Tolerance</td>
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<tr>
<td>Patient Understanding of Disability</td>
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<tr>
<td>Family Understanding of Disability</td>
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<tr>
<td>Discharge Planning</td>
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<td>Economic Situation</td>
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<tr>
<td>Psychological Adjustment</td>
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<tr>
<td><strong>TOTAL</strong></td>
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</tbody>
</table>

DX:

C:
APPENDIX C

Functional Classification Questionnaire Ver.1 and Ver.3 Results
The following questionnaire is an attempt to ask you, the people who routinely use the FCS, what you think of the system. Please rate the following questions on a 1 to 5 scale with 1 being strongly agreeing and 5 being strongly disagreeing to the question asked.

1. Does the Functional Classification System currently being used give a good representation of the patient's status?

(agree) 1 ........ 2 ........ 3 ........ 4 ........ 5 (disagree)

2. Does the Functional Classification System take a reasonable amount of time for the information it gives?

(agree) 1 ........ 2 ........ 3 ........ 4 ........ 5 (disagree)

3. Is the Functional Classification System sensitive enough to reflect change in a patient's status?

(agree) 1 ........ 2 ........ 3 ........ 4 ........ 5 (disagree)

4. Are each of the disciplines giving an equal input for the total score of the Functional Classification System?

(lowest) 1 ........ 2 ........ 3 ........ 4 ........ 5 (highest)

5. Does the Functional Classification System give a good representation of ability for all types of disabilities seen in our Rehab Unit?

(agree) 1 ........ 2 ........ 3 ........ 4 ........ 5 (disagree)

What disabilities are best assessed by the Functional Classification System?

What disabilities are not well assessed by the Functional Classification System?
Table 3: RATER SATISFACTION QUESTIONNAIRE RESULTS

1. Does the Functional Classification System currently being used give a good representation of the patient’s status?

(agree) 1       2       3       4       5 (disagree)
3/92 FCS: ver. 2: 0       5       6       5       0 (16) responses
percentage: 31.25% 37.5% 31.25%
1/93 FCS: ver. 3: 3       10      1       0       0 (14) responses
percentage: 21.4% 71.4% 7.1%

2. Does the Functional Classification System take a reasonable amount of time for the information it gives?

(agree) 1       2       3       4       5 (disagree)
3/92 FCS: ver. 2: 1       8       6       1       0 (16) responses
percentage: 6.3% 50% 37.5% 6.3%
1/93 FCS: ver. 3: 0       12      2       0       0 (14) responses
percentage: 85.7% 14.3%

3. Is the Functional Classification System sensitive enough to reflect change in a patient’s status?

(agree) 1       2       3       4       5 (disagree)
3/92 FCS: ver. 2: 2       6       3       5       0 (16) responses
percentage: 12.5% 37.5% 18.75% 31.25%
1/93 FCS: ver. 3: 4       9       2       0       0 (14) responses
percentage: 28.6% 64.3% 14.3%

5. Does the Functional Classification System give a good representation of ability for all types of disabilities seen in our Rehab Unit?

(agree) 1       2       3       4       5 (disagree)
3/92 FCS: ver. 2: 0       2       3       9       2 (16) responses
percentage: 12.5% 18.75% 56.25% 12.5%
1/93 FCS: ver. 3: 1       3       6       4       0 (14) responses
percentage: 7.1% 21.4% 42.9% 28.9%
REFERENCES


4. Devine-Ruggles J. Development of a Functional Classification System for a Rehabilitation Unit at St. Alexius Medical Center. Grand Forks, ND; University of North Dakota, School of Physical Therapy 1993: Independent Study.


