ROBOTS IN ASSISTED
LIVING ENVIRONMENTS

UNOBTRUSIVE, EFFICIENT, RELIABLE AND MODULAR
SOLUTIONS FOR INDEPENDENT AGEING

Research Innovation Action

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DELIVERABLE 2.2

Early Detection methods and relevant system requirements II

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Abstract

This report defines the profile of the end-users target group and sets functional requirements from the medical perspective for this target group. That is to say, requirements relevant to making the system fit for its medical assessment purpose. These requirements refer to the ADL and mood data that are needed in order to complete the interRAI assessment.

History and Contributors

Ver	Date	Description	Contributors
01	3 June 2015	First draft, establishing document structure.	NCSR-D
02	15 June 2015	Analysis of relevance of interRAI assessment items to RADIO use cases	FHAG
04	26 June 2015	Categorization of relevant interRAI assessment items for RADIO system	FHAG, NCSR-D
05	9 July 2015	Internal peer review	FSL
Fin	15 July 2015	Final document preparation and submission	NCSR-D

Abbreviations and Acronyms

ADL	Activities of Daily Living
ASQ	After-Scenario Questionnaire
IADL	Instrumental Activities of Daily Living
interRAI	International collaborative to improve the quality of life of vulnerable persons through a seamless comprehensive assessment system. Cf. http://www.interrai.org
interRAI HC	The *interRAI* Home Care Assessment System
interRAI LTCF	The *interRAI* Long-Term Care Facilities Assessment System
MMSE	Mini Mental State Examination
PIADS	Psychosocial Impact of Assistive Devices Scale
SUS	System Usability Scale

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1 INTRODUCTION

1.1 Purpose and Scope

This deliverable works towards the objective of establishing functional requirements so that the RADIO system is a medically sound alternative to classical care services models based on close supervision and inpatient monitoring.

In the previous version of this document (D2.1), the details of the profile of the users target group were defined. In this report, we elaborate by establishing and characterizing the assessment items that are relevant to this target group and that the system needs to provide. The characterization pertains to the type of information represented by each item, in order to decide which system component needs to deal with each item.

1.2 Approach

This deliverable is prepared within Task 2.1 *Review of early detection methods and necessary system actuation* and forms the basis for setting clinically-oriented functional requirements.

As a basis of our work, we assume the interRAI *Long-Term Care Facilities Assessment System* (interRAI LTCF) that enables comprehensive, standardized evaluation of the needs, strengths, and preferences of persons receiving short-term post-acute care in skilled nursing facilities as well as persons living in chronic care and nursing home institutional settings (Appendix II). Section 2 briefly presents the users' profile as defined in D2.1. In Section 3 we proceed to identify the specific items of interRAI LTCF that are applicable to this profile and to characterize each item as follows:

1) *Background information*, which includes identification information, intake and initial history as well as other facts.
2) *Observation*, which includes observation of physical activity, communication record, etc.
3) *Personal Interview*, which includes all data collected by directly interviewing end-users, provided that their cognitive state allows it.
4) *Other*, if the information does not fall in any of the above categories.

1.3 Relation to other Work Packages and Deliverables

This deliverable is a successor of D2.1 *Early Detection methods and relevant system requirements I* and a precursor to *D2.3 Early Detection methods and relevant system requirements III, D2.6 Guidelines for balancing between medical requirements and obtrusiveness I, D3.1 Conceptual architecture for sensing methods and sensor data sharing and D5.1 Architecture of the RADIO ecosystem.*

The characterization described previously for the iterRAI LTCF items will be used to from the requirements for either the purely automatic detection methods (specified in D3.1 and developed in WP3) or the care-giver interface (specified in D5.1 and developed in WP5).

Finally, this deliverable along with the actual and perceived privacy considerations and ethical requirements (D2.4), will set the trade-off between medical requirements and the obtrussiveness off the RADIO System.

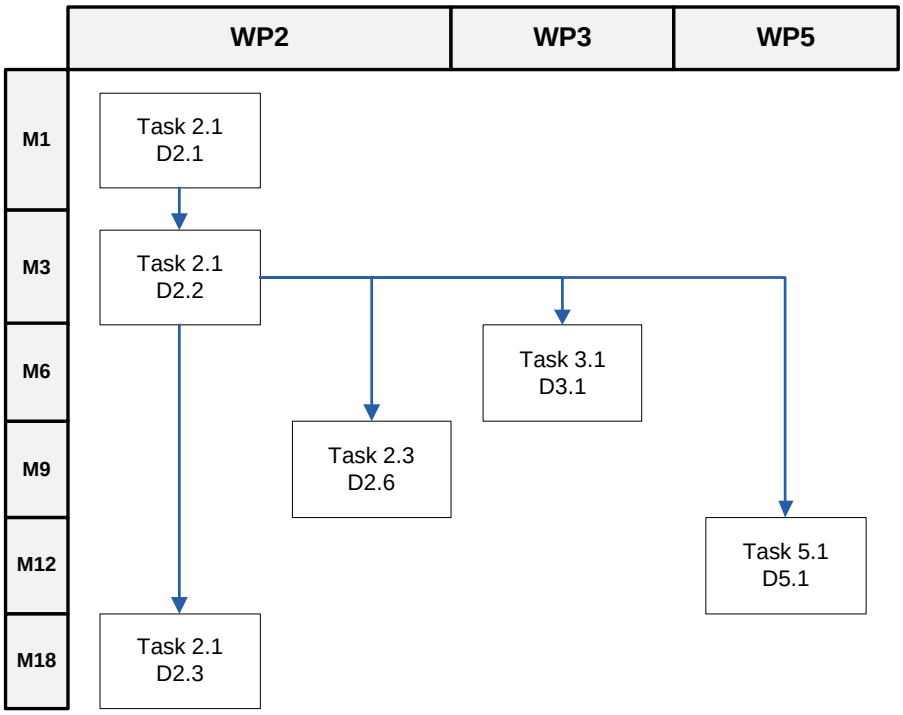

Figure 1: Dependencies between this deliverable and other deliverables.

2 RADIO USERS PROFILE

In D2.1 the profile of the users of RADIO system was presented. Here we recapitulate the end users profile.

For the *formative phase* the profile of the users is the following:

Inclusion criteria

- Older than 64 years old
- Ability to walk without human assistance indoors
- Need supervision in almost two IADLs
- Willing to participate in the study and wanting to co-operate in all its parts, accepting the performance regulations and procedures provided by the researchers

Exclusion criteria

- Moderate/severe mental disease, such as dementia, according to clinical criteria -DSM-IV-TR and MMSE score ≤18 or neuropsychiatric disorders.
- Moderate/Severe disability ADL< 4
- Acute medical conditions
- Unable to fully understand the potential risks and benefits of the study and give informed consent. Subjects who are unable or unwilling to cooperate with study procedures.
- Blind
- Deaf
- Languages problems

For the intermediate phase the criteria are almost the same:

Inclusion criteria:

- Older than 64 years old.
- Ability to walk without human assistance indoors.
- Need supervision in almost two IADL
- Willing to participate in the study and wanting to co-operate in all its parts, accepting the performance regulations and procedures provided by the researchers

Exclusion criteria:

- Moderate/severe mental disease, such as dementia, according to clinical criteria -DSM-IV-TR and MMSE score ≤18 or neuropsychiatric disorders.
- Moderate/Severe disability ADL< 4
- Acute medical conditions.
- Unable to fully understand the potential risks and benefits of the study and give informed consent. Subjects who are unable or unwilling to cooperate with study procedures.

Finally the participant in the final phase must comply with the following criteria:

Inclusion criteria

- Older than 64 years old
- Ability to walk without human assistance indoors
- Need supervision in almost two IADLs
- Willing to participate in the study and wanting to co-operate in all its parts, accepting the performance regulations and procedures provided by the researchers
- Community dwelling participants will have a family member or relative available (not mandatory for nursing home residents)

Exclusion criteria

- Moderate/severe mental disease, such as dementia, according to clinical criteria -DSM-IV-TR and MMSE score ≤18 or neuropsychiatric disorders
- Moderate/Severe disability ADL< 4
- Acute medical conditions
- Deaf
- Blind
- Languages problems
- Participating in another clinical trial.
- Unable to fully understand the potential risks and benefits of the study and give informed consent. Subjects who are unable or unwilling to cooperate with study procedures
- Unable to operate the RADIO system after 2 training sessions

3 ASSESSMENT ITEMS

InterRAI LTCF is introduced in Section 3.1 and its suitability for assessing our user group is discussed. Sections 3.2-3.6 introduce assessment items as grouped in the interRAI LTCF. On top of the list of ADLs (S.3.3) and mood recognition items (S. 3.5) as described in the DoA, we also consider identification and medical history information (S. 3.2), cognitive assessment items (S. 3.4) and Health Condition and Continence items.

Throughout the sections there are tables that present:

1) The assessment item – Based on the interRAI LTCF.
2) A description of detailed items that need to be considered for assessment (when applicable) – Based on the interRAI LTCF.
3) A coding (measure scale) for each item – Based on the interRAI LTCF.
4) The categorization of the information as described in Section 1.2.

3.1 The interRAI Assessment

Population ageing observed throughout the twentieth century is one of the most important demographic milestones in the history of mankind. Acquiring a longer life expectancy is considered a success, but for some people ageing is associated with increased frailty and dependence. Half of those over 60 have chronic disease and this proportion will increase while the population over 85 will double in the next twenty years.

Ageing is a normal dynamic, progressive, complex, diverse and irreversible biological condition. All changes in the body lead to loss of function and decline in organic reserves, leading to vulnerability because lack of adaptability to minor insults.

In addition to atypical presentation, disease in the elderly is also characterized by: the impact on function, a slower course, more complications and de-compensation of chronic comorbidities.

Anticipative care for functional impairment is par excellence one of the main strengths of geriatricians. We should not end this reflection on functionality without stressing the importance of the environment in which the disease develops, determining that this functional disability in the elderly can evolve more easily to dependence.

For all these reasons the systematic assessment of functioning in geriatrics is essential. In this way we will achieve an early detection and early intervention that will affect the course and prognosis of the disease in this group.

As previously mentioned disease in elderly patients is characterized by the existence of multiple and complex needs; unlike adults, featuring single organ disease, the elderly presents multimorbidity, functional impairment plus cognitive-affective and social impact.

Therefore the approach used in the geriatric care process is based on the systematic comprehensive geriatric assessment that will enable us to develop a multimodal treatment plan to gain recovery and promote independence. This approach has been shown to increase the likelihood that patients will survive and be discharged home after hospital admission episodes.

One of the most characteristic aspects of geriatric care process and the comprehensive geriatric assessment is the use of standardized assessment tools by various members of the interdisciplinary team. InterRAI in this sense, an international corporation of multidisciplinary researchers, has focused on developing tools and comprehensive assessment systems in vulnerable groups. Currently more than 600 publications in scientific journals and a broad international implementation in more than 30

countries support the InterRAI technology as the "state of the art" systems for comprehensive and integrated assessment.

The InterRAI system serves as a universal language. This feature lets you work in an integrated information system where clinical concepts are present in the various instruments (acute, post-acute, palliative, long stay, etc.) allowing clinicians and care providers care continuity at different settings and integration of care for each individual. This universal language also empowers families, representatives of service users and buyers to follow the progression of the program participants through the various devices.

The InterRAI system consists of several elements, a multidimensional assessment form (also referred as a minimum data set), the instructions manual –explaining definitions, assessment process, coding values and options–, and finally another manual where the outcome measures are described – scales, clinical assessment protocols, quality indicators, case-mix grouping.

The InterRAI instruments have been adopted internationally, at present more than 30 countries are using InterRAI technology in some of its vulnerable groups. It is for these reasons: scientific robustness and international deployment that we opted use, InterRAI technology as the assessment tool.

The instrument is comprised with the following sections: identification data, data entry, cognition, communication / vision / hearing, mood and behavior, psychosocial well-being, physical function, continence, diagnosis of diseases, health problems, oral and nutritional status, skin condition, activity, participation, medications, treatments and procedures, accountability, directives, discharge potential.

The RADIO project in its final objective seeks to find solutions to prolong independent living for the elderly population. The justification lies in the recording and analysis of data on physical activity patterns and patterns of mood and behaviour that alert the medical staff as appropriate, thus helping early diagnosis and appropriate intervention. RADIO system observes the ADL and observations are used to establish patterns and identify deviations. In this regard the range of possibilities of observations can vary from time spent living outside the home and do an activity or sleep patterns, recognizing if the user has changed clothes, bathed or other information specified by the doctor.

Functionality is a generic term that includes function, activity and participation indicating the positive aspects of this interaction. On the contrary, *disability* is a generic term that includes deficiencies, limitations and restrictions and indicates the negative aspects of the interaction between the individual (with a health condition) and contextual factors (environmental and personal factors).

Functional assessment's approach considers three levels: basic activities of daily living, instrumental activities of daily living and advanced activities of daily living. In the literature of telehealth activities of daily living (ADL) often are used interchangeably incorporating both basic and instrumental activities this aspect may lead to subsequent methodological errors.

The basic activities of daily living contemplate self-care activities (personal hygiene, bathing, using the toilet, sphincter control, clothing, and food) and mobility (walking, transfers and stairs). Instrumental activities contemplate preparing meals, domestic tasks, financial management, management of medicines and shopping. Such activities are usually investigated by the ability (not performance) of the individual in its realization (thus avoiding the sociological bias gender dependence of certain household chores).

Since the early work of Katz, the functional loss has been shown to follow a specific pattern such as cooking, housekeeping or use of drugs, shopping. Morris recently posed a hierarchy of ability to perform IADL obviating shared-spread tasks within couples.

The early loss IADLs are shopping and housework, followed by meal preparation, managing finances, and managing medications. Some of these IADLs are not in the NH setting (e.g., shopping,

housework) so if we are assessing capacity (this is the way to do it) the sensors will not collect these activities because they do not occur. Late loss IADLs such as managing medication, finances, telephone use fit much better within the study

With regard to the pattern of functional loss in basic activities of daily living the hierarchy begins with personal hygiene, toilet use, deambulation and finally feeding. Despite Barthel index universal use some concerns regarding methodology come across in this project. There are different ways to administer Barthel Index (self-report, clinical observation administered by a nurse or by PT. Agreement was low when self-reported and in particular in the elderly population (overestimation)

Assessment of ADL in long term care facilities is usually performed on admission, at discharge, in presence of significant clinical changes and on quarterly bases. Understaffed nursing homes will not be able to make early diagnosis, neither to implement anticipatory care. The potential use of triggers of early impairment on ADL will contribute helping nursing staff (rather than replacing them) because they facilitate task prioritization according stability and patient's needs.

3.2 Identification information, intake and initial history

Sections A and B of the InterRAI LTCF assessing form contain *identification information*, as well as, *intake and initial history information*. Please refer to the Table of Appendix I for details. The RADIO system should be able to collect and provide this information. Naturally, the collection and availability of the information must comply with the privacy considerations and ethical requirements as described in D2.4. The information in these Section is *Background Information.*

3.3 Introduction of ADLs used for assessing independency

Most persons in long-term care facilities are at risk of physical decline. Most persons also have multiple chronic illnesses and are subject to a variety of other factors that can severely impact self-sufficiency. For example, cognitive deficits can limit a person's ability or willingness to initiate or participate in self-care or constrict his or her understanding of the tasks required to complete activities of daily living (ADLs). A wide range of physical and neurological illnesses can adversely affect physical factors important to self-care such as stamina, muscle tone, balance, and bone strength. Side effects of medications and other treatments can also contribute to needless loss of self-sufficiency.

Due to these many, possibly adverse, influences, a person's potential for maximum functionality is often greatly underestimated by family, staff, and the person him- or herself. Thus, all persons are potential candidates for nursing-based rehabilitative care that focuses on maintaining and expanding self-involvement in ADLs. Individualized care plans can be successfully developed only when the person's self-performance has been accurately assessed and the amount and type of support being provided to the person by others has been evaluated.

The *functional status* of a person (Section G of the interRAI LTCF) is assessed based on the *ADL Self Performance, Locomotion and Walking* and Activity *Level.* Appendix I, presents examples of the assessment process as described in the interRAI LTCF manual, for *Section G Functional Status* and *Section E Mood and Behaviour.*

3.3.1 Activities of Daily Living (ADL) Self-Performance

The intent here is to record the person's self-care performance in activities of daily living (that is, what the person actually did for him- or herself or how much verbal or physical help was required by staff members) during the last 3 days.

Table 1 describes the items of ADL self-performance and the measure scale as used in interRAI LTCF.

Table 1: ADL Self-Performance Items

Assessment Item	Description	Measure Scale	Information Kind / Source
1. ADL SELF-PERFORMANCE Consider all episodes over 3-day period. If all episodes are performed at the same level, score ADL at that level. If any episodes at level 6, and others less dependent, score ADL as a 5. Otherwise, focus on the three most dependent episodes [or all episodes if performed fewer than 3 times]. If most dependent episode is 1, score ADL as 1. If not, score ADL as least dependent of those episodes in range 2-5.	a. Bathing—How takes a full-body bath / shower. Includes how transfers in and out of tub or shower AND how each part of body is bathed: arms, upper and lower legs, chest, abdomen, perineal area - EXCLUDE WASHING OF BACK AND HAIR b. Personal hygiene —How manages personal hygiene, including combing hair, brushing teeth, shaving, applying make-up, washing and drying face and hands - EXCLUDE BATHS ANDSHOWERS c. Dressing upper body—How dresses and undresses (street clothes, underwear) above the waist, including prostheses, orthotics, fasteners, pullovers, etc. d. Dressing lower body—How dresses and undresses (street clothes, underwear) from the waist down including prostheses, orthotics, belts, pants, skirts, shoes, fasteners, etc e. Walking—How walks between locations on same floor indoors f. Locomotion—How moves between locations on same floor (walking or wheeling). If in wheelchair, self-sufficiency once in chair g. Transfer toilet—How moves on and off toilet or commode h. Toilet use—How uses the toilet room (or commode, bedpan, urinal), cleanses self after toilet use or incontinent episode(s), changes pad, manages ostomy or catheter, adjusts clothes - EXCLUDE TRANSFER ON AND OFF TOILET i. Bed mobility—How moves to and from lying position, turns from side to side, and positions body while in bed j. Eating—How eats and drinks (regardless of skill). Includes intake of nourishment by other means (e.g., tube feeding, total parenteral nutrition)	0 Independent—No physical assistance, setup, or supervision in any episode 1 Independent, setup help only—Article or device provided or placed within reach, no physical assistance or supervision in any episode 2 Supervision—Oversight / cuing 3 Limited assistance—Guided maneuvering of limbs, physical guidance without taking weight 4 Extensive assistance—Weight-bearing support (including lifting limbs) by 1 helper where person still performs 50% or more of subtasks 5 Maximal assistance—Weight-bearing support (including lifting limbs) by 2+ helpers —OR— Weight-bearing support for more than 50% of subtasks 6 Total dependence—Full performance by others during all episodes 8 Activity did not occur during entire period	Observation

3.3.2 Locomotion and walking

The intent of this part of the assessment is to record the primary mode of locomotion and type of appliances, aids, or assistive devices the person used over the last 3 days. Table 2 describes the items of locomotion and walking and the relative measure scales as used in interRAI LTCF.

Table 2 Locomotion and Walking Items

Assessment Item	Description	Measure Scale	Information Kind / Source
2. LOCOMOTION / WALKING	a. Primary mode of locomotion	0 Walking, no assistive device 1 Walking, uses assistive device—e.g., cane, walker, crutch, pushing wheelchair 2 Wheelchair, scooter 3 Bedbound	Background
	b. Timed 4-meter (13 foot) walk [Lay out a straight unobstructed course. Have person stand in still position, feet just touching start line] Then say: "When I tell you begin to walk at a normal pace (with cane/walker if used). This is not a test of how fast you can walk. Stop when I tell you to stop. Is this clear?" Assessor may demonstrate test. Then say: "Begin to walk now" Start stopwatch (or can count seconds) when first foot falls. End count when foot falls beyond 4-meter mark.Then say: "You may stop now" Enter time in seconds, up to 30 seconds.	30 or more seconds to walk 4-meters 77 Stopped before test complete 88 Refused to do the test 99 Not tested—e.g., does not walk on own	Observation
	c. Distance walked—Farthest distance walked at one time without sitting down in the LAST 3 DAYS (with support as needed)	0 Did not walk 1 Less than 5 meters 2 5-49 meters 3 50-99 meters 4 100+ meters 5 1+ kilometers	Observation
	d. Distance wheeled self—Farthest distance wheeled self at one time in the LAST 3 DAYS (includes independent use of motorized wheelchair)	0 Wheeled by others 1 Used motorized wheelchair / scooter 2 Wheeled self less than 5 meters 3 Wheeled self 5-49 meters 4 Wheeled self 50-99 meters 5 Wheeled self 100+ meters 8 Did not use wheelchair	Observation

3.3.3 Activity Level

Moderate physical activity in connection with activities of everyday life or chosen activities can help to keep persons fit in many ways. Below a certain threshold of activity, functional decline may be accelerated. It is possible for persons to participate in exercise programs and show large gains in strength and endurance. Exercises need not be strenuous to provide benefit. Regular walking or wheeling a wheelchair may be included in the total hours as well as physical therapy or less formal exercise.

Table 3 Activity Level

Assessment Item	Description	Measure Scale	Information Kind / Source
3. ACTIVITY LEVEL	a. Total hours of exercise or physical activity in LAST 3 DAYS—e.g., walking	0 None 1 Less than 1 hour 2 1-2 hours 3 3-4 hours 4 More than 4 hours	Observation
	b. In the LAST 3 DAYS, number of days went out of the house or building in which he / she resides (no matter how short the period)	0 No days out 1 Did not go out in last 3 days, but usually goes out over a 3-day period 2 1-2 days 3 3 days	Observation

3.3.4 Physical function improvement

Two more items are contained in Section G of the interRAI LTCF. *Physical function improvement potential* (G4) refers to the beliefs and characteristics related to the person's functional status that may indicate he or she has the capacity for greater independence and involvement in self-care in at least some ADLs. Even if already highly independent in an activity, the person may believe he or she can do better (for example, walk longer distances, shower independently). A final item in this section can be used to assess the change in ADL status compared to 90 days ago or since last assessment (G5).

These items are presented in Table 4 below.

Table 4 Physical function improvement

Assessment Item	Description	Measure Scale	Information Kind / Source
4. PHYSICAL FUNCTION IMPROVEMENT POTENTIAL	a. Person believes he / she is capable of improved performance in physical function b. Care professional believes person is capable of improved performance in physical function	0 No 1 Yes	Personal Interview
5. CHANGE IN ADL STATUS AS COMPARED TO 90 DAYS AGO, OR SINCE LAST ASSESSMENT IF LESS THAN 90 DAYS AGO		0 Improved 1 No change 2 Declined	Other

3.3.5 Activity pursuit

The list of items presented in Table 5 are part of *Sections M. Activity Pursuit* of the interRAI LTCF assessment. Some of the items could be regarded as advanced activities of daily living and have close relationship with environment and social interaction.

Table 5 Activity Pursuit

Assessment Item	Description	Measure Scale	Information Kind / Source
2. ACTIVITY PREFERENCES AND INVOLVEMENT (adapted to current abilities)	a. Cards, games, or puzzles b. Computer activity c. Conversing or talking on the phone d. Crafts or arts e. Dancing g. Exercise or sports h. Gardening or plants i. Helping others j. Music or singing k. Pets l. Reading, writing, or crossword puzzles m. Spiritual or religious activities n. Trips/shopping o. Walking or wheeling outdoors p. Watching TV or listening to radio f. Discussing/reminiscing about life	0 No preference, not involved in last 3 days 1 No preference, involved in last 3 days 2 Preferred, not involved 3 Preferred, regularly involved but not in last 3 days 4 Preferred, involved in last 3 days	Observation
3. TIME ASLEEP DURING DAY		0 Awake all or most of time (no more than one nap in the morning or afternoon) 1 Had multiple naps 2 Asleep most of the time, but some periods awake and alert (e.g., at meals) 3 Largely asleep or unresponsive	Observation

3.4 Introduction of cognitive items to be used for assessment

The purpose of assessing cognitive and memory items, as listed in Table 6 is to determine a person's performance in remembering, thinking coherently and organizing daily self-care activities. This information is important to asses a person's ability to follow instructions and treatment regimens and make independent decisions.

Table 6 Cognitive and Memory Items

Assessment Item	Description	Measure Scale	Information Kind / Source
1. COGNITIVE SKILLS FOR DAILY DECISION MAKING Making decisions regarding tasks of daily life—e.g., when to get up or have meals, which clothes to wear or activities to do		0 Independent – Decisions consistent, reasonable, and safe 1 Modified independence – Some difficulty in new situation only 2 Minimally impaired – In specific recurring situations, decisions become poor or unsafe; cues/supervision necessary at those times 3 Moderately impaired – Decisions consistently poor or unsafe; cues / supervision required at all times 4 Severely impaired – Never or rarely makes decisions 5 No discernible consciousness, coma [Skip to Section G]	Observation provides useful data for deciding on scale.
2. MEMORY/RECALL ABILITY Code for recall of what was learned or known.	a. Short-term memory OK—Seems / appears to recall after 5 minutes b. Long-term memory OK—Seems / appears able to recall distant past c. Procedural memory OK—Can perform all or almost all steps in a multitask sequence without cues d. Situational memory OK—Both: recognizes caregivers' names / faces frequently encountered AND knows location of places regularly visited (bedroom, dining room, activity room, therapy room)	0 Yes, memory OK 1 Memory problem	a. Personal Interview b. Personal Interview c. Observation d. Observation and Personal Interview

3. PERIODIC DISORDERED THINKING OR AWARENESS [Note: Accurate assessment requires conversations with staff, family or others who have direct knowledge of the person' behavior over this time]	a. Easily distracted—e.g., episodes of difficulty paying attention; gets side-tracked b. Episodes of disorganized speech—e.g., speech is nonsensical, irrelevant, or rambling from subject to subject; loses train of thought c. Mental function varies over the course of the day – e.g., sometimes better, sometimes worse	0 Behaviour not present 1 Behaviour present, consistent with usual functioning 3 Behaviour present, appears different from usual functioning (e.g., new onset or worsening; different from a few weeks ago)	a. Personal Interview b. Observation c. Personal Interview
4. ACUTE CHANGE IN MENTAL STATUS FROM PERSON'S USUAL FUNCTIONING-- e.g., restlessness, lethargy, difficult to arouse, altered environmental perception		0 No 1 Yes	Observation
5. CHANGE IN DECISION MAKING AS COMPARED TO 90 DAYS AGO (OR SINCE LAST ASSESSMENT)		0 Improved 1 No change 2 Declined 8 Uncertain	Other

3.5 Introduction of mood items to be used for assessing independency

Mood distress is a serious condition and is associated with diminished quality of life, non-responsiveness to or non-adherence to treatment regimens, and increased risk of poor outcomes. Depression is often under-detected and therefore inadequately treated even though effective treatments are readily available. Factors associated with mood distress include poor adjustment to living in the facility, increased functional impairment, and resistance to daily care, inability to participate in activities, isolation, medical comorbidity, cognitive impairment, and an increased sensitivity to physical pain. Section E: Mood and Behaviour of the interRAI LTCF assessment. (See Appendix 1 for an example of Section E as found in the interRAI LTCF manual).

Table 7 presents the indicators of possible depressed, anxious or sad mood. The intent is to record the presence and frequency of indicators observed in the last 3 days or prior to the last 3 days, irrespective of the assumed cause of the indicator. In some cases, an indicator may not have been observed in the last 3 days, but it continues to be "present" and active in a way that has a meaningful impact on the person's current care needs. When combined with other items in the instrument, these indicators can provide information about the severity of the person's condition.

The mental state indicators may be expressed verbally or through nonverbal indicators or behaviors that can be monitored by observing the person during usual daily routines.

Table 7 Mood and Behaviour Items

Assessment Item	Description	Measure Scale	Information Kind / Source
1. INDICATORS OF POSSIBLE DEPRESSED, ANXIOUS, OR SAD MOOD Code for indicators observed in last 3 days, irrespective of the assumed cause [Note: Whenever possible, ask person]	a. Made negative statements —e.g., "Nothing matters; Would rather be dead; What's the use; Regret having lived so long; Let me die" b. Persistent anger with self or others—e.g., easily annoyed, anger at care received c. Expressions, including non-verbal, of what appear to be unrealistic fears—e.g., fear of being abandoned, being left alone, being with others; intense fear of specific objects or situations d. Repetitive health complaints —e.g., persistently seeks medical attention, incessant concern with body functions e. Repetitive anxious complaints / concerns (nonhealth related)—e.g., persistently seeks attention / reassurance regarding schedules, meals, laundry, clothing, relationships f. Sad, pained, or worried facial expressions —e.g., furrowed brow, constant frowning g. Crying, tearfulness h. Recurrent statements that something terrible is about to happen—e.g., believes he or she is about to die, have a heart attack i. Withdrawal from activities of interest—e.g., longstanding activities, being with family / friends j. Reduced social interactions k. Expressions, including non-verbal, of a lack of pleasure in life (anhedonia)—e.g., "I don't enjoy anything anymore"	0 Not present 1 Present but not exhibited in last 3 days 2 Exhibited on 1-2 of last 3 days 3 Exhibited daily in last 3 days	Observation
2. SELF-REPORTED MOOD Ask: "In the last 3 days, how often have you felt..."	a. Little interest or pleasure in things you normally enjoy? b. Anxious, restless, or uneasy? c. Sad, depressed, or hopeless?	0 Not in last 3 days 1 Not in last 3 days, but often feels that way 2 In 1-2 of last 3 days 3 Daily in the last 3 days 8 Person could not (would not) respond	Personal Interview
3. BEHAVIOR SYMPTOMS Code for indicators observed, irrespective of the assumed cause	a. Wandering—Moved with no rational purpose, seemingly oblivious to needs or safety b. Verbal abuse—e.g., others were threatened, screamed at, cursed at. c. Physical abuse—e.g., others were hit, shoved, scratched, sexually abused d. Socially inappropriate or disruptive behavior—e.g., made disruptive sounds or noises, screamed out, smeared or threw food or feces, hoarded, rummaged through other's belongings e. Inappropriate public sexual behavior or public disrobing f. Resists care—e.g., taking medications / injections, ADL assistance, eating	0 Not present 1 Present but not exhibited in last 3 days 2 Exhibited on 1-2 of last 3 days 3 Exhibited daily in last 3 days	Observation

3.6 Introduction of Health Conditions and Continence items for assessment

Table 8 presents the Health Condition items that need to be assessed, as listed in Section J of the interRAI LTCF

Table 8 Health Condition

Medical Attribute	Description	Measure Scale	Information Kind / Source
1. FALLS		0 No fall in last 90 days 1 No fall in last 30 days, but fell 31-90 days ago 2 One fall in last 30 days 3 Two or more falls in last 30 days	Observation
3. PROBLEM FREQUENCY Code for presence in last 3 days - balance	a. Difficult or unable to move self to standing position unassisted b. Difficult or unable to turn self around and face the opposite direction when standing c. Dizziness d. Unsteady gait		a. Observation b. Observation c. Observation d. Observation
3. PROBLEM FREQUENCY Code for presence in last 3 days - cardiac or pulmonary Direct interview if cognitive OK	e. Chest pain f. Difficulty clearing airway secretion	0 Not present 1 Present but not exhibited in last 3 days 2 Exhibited on 1 of last 3 days 3 Exhibited on 2 of last 3 days 4 Exhibited daily in last 3 days	e. Personal interview f. Observation
3. PROBLEM FREQUENCY Code for presence in last 3 days - GI status	l. Constipation—No bowel movement in 3 days or difficult passage of hard stool m. Diarrhoea k. Acid reflux—Regurgitation of acid from stomach to throat n. Vomiting		l. Personal Interview m. Observation **and** Personal interview k. Personal Interview n. Observation
3. PROBLEM FREQUENCY Code for presence in last 3 days - sleep problem	o. Difficulty falling asleep or staying asleep; waking up too early; restlessness; non-restful sleep p. Too much sleep—Excessive amount of sleep that interferes with person's normal functioning		o/p. Observation
3. PROBLEM FREQUENCY Code for presence in last 3 days - other	r. Fever s. GI or GU bleeding t. Peripheral oedema q. Aspiration (Coughing while eating)		r/s/t. Other q. Observation

4. DYSPNEA (Shortness of breath)		0 Absence of symptom 1 Absent at rest, but present when performed moderate activities 2 Absent at rest, but present when performed normal day-to-day activities 3 Present at rest	Observation
5. FATIGUE Inability to complete normal daily activities—e.g., ADLs, IADLs		0 None 1 Minimal—Diminished energy but completes normal day-to-day activities 2 Moderate—Due to diminished energy, UNABLE TO FINISH normal day-to-day activities 3 Severe—Due to diminished energy, UNABLE TO START SOME normal day-to-day activities 4 Unable to commence any normal day-to-day activities—Due to diminished energy	Observation
6. PAIN SYMPTOMS [Note: Always ask the person about pain frequency, intensity, and control. Observe person and ask others who are in contact with the person.]	a. Frequency with which person complains or shows evidence of pain (including grimacing, teeth clenching, moaning, withdrawal when touched, or other nonverbal signs suggesting pain)	0 No pain 1 Present but not exhibited in last 3 days 2 Exhibited on 1-2 of last 3 days 3 Exhibited daily in last 3 days	Observation **and** Personal interview
	b. Intensity of highest level of pain present	0 No pain 1 Mild 2 Moderate 3 Severe 4 Times when pain is horrible or excruciating	Personal interview
	c. Consistency of pain	0 No pain 1 Single episode during last 3 days 2 Intermittent 3 Constant	Observation **and** Personal interview
	d. Breakthrough pain—Times in last 3 days when person experienced sudden, acute flare-ups of pain		Personal interview
	e. Pain control—Adequacy of current therapeutic regimen to control pain (from person's point of view)	0 No issue of pain 1 Pain intensity acceptable to person; no treatment regimen or change in regimen required 2 Controlled adequately	Other

		by therapeutic regimen 3 Controlled when therapeutic regimen followed, but not always followed as ordered 4 Therapeutic regimen followed, but pain control not adequate 5 No therapeutic regimen being followed for pain; pain not adequately controlled	
8. SELF-REPORTED HEALTH Ask: "In general, how would you rate your health?"		0 Excellent 1 Good 2 Fair 3 Poor 4 Could not (would not) respond	Personal interview

Table 9 presents the Continence items that need to be assessed, as listed in Section H of the interRAI LTCF.

Table 9 Continence

Assessment Item	Measure Scale	Information Kind / Source
1. BLADDER CONTINENCE	0 Continent—Complete control; DOES NOT USE any type catheter or other urinary collection device 1 Control with any catheter or ostomy over last 3 days 2 Infrequently incontinent—Not incontinent over last 3 days, but does have incontinent episodes 3 Occasionally incontinent—Less than daily 4 Frequently incontinent—Daily, but some control present 5 Incontinent—No control present 8 Did not occur—No urine output from bladder in last 3 days	Observation
2. URINARY COLLECTION DEVICE (Exclude pads / briefs)	0 None 1 Condom catheter 2 Indwelling catheter 3 Cystostomy, nephrostomy, ureterostomy	Background Information
3. BOWEL CONTINENCE	0 Continent—Complete control; DOES NOT USE any type of ostomy device 1 Control with ostomy—Control with ostomy device over last 3 days 2 Infrequently incontinent—Not incontinent over last 3 days, but does have incontinent episodes 3 Occasionally incontinent—Less than daily 4 Frequently incontinent—Daily, but some control present 5 Incontinent—No control present 8 Did not occur—No bowel movement in the last 3 days	Observation
4. OSTOMY	0 No 1 Yes	Background Information

APPENDIX I: INTERRAI LTCF

Section G1

G1. Activities of Daily Living (ADL) Self-Performance

Intent

To record the person's self-care performance in activities of daily living (that is, what the person actually did for him- or herself or how much verbal or physical help was required by staff members) during the last 3 days.

Definitions

ADL self-performance — Measures based on all episodes of the activity over the last 3 days. The following are the performance-based items.

G1a. Bathing — How the person takes a full-body bath or shower. Includes how the person transfers in and out of shower or tub and how each part of the body is bathed: arms, upper and lower legs, chest, abdomen, perineal area. **Exclude washing of back and hair.**

G1b. Personal hygiene — How the person manages personal hygiene, including combing hair, brushing teeth, shaving, applying makeup, and washing and drying face and hands. **Exclude baths or showers.**

G1c. Dressing upper body — How the person dresses and undresses (street clothes, underwear) above the waist, including prostheses, orthotics, fasteners, pullovers, etc.

G1d. Dressing lower body — How the person dresses and undresses (street clothes, underwear) from the waist down, including prostheses, orthotics (for example, antiembolic stockings), belts, pants, skirt, shoes, fasteners, etc.

G1e. Walking — How the person walks between locations on the same floor indoors.

G1f. Locomotion — How the person moves between locations on the same floor (walking or wheeling). If the person uses a wheelchair, this measures self-sufficiency once he or she is in the chair.

G1g. Transfer toilet — How the person moves on and off the toilet or commode.

G1h. Toilet use — How the person uses the toilet room (or commode, bedpan, or urinal), cleanses him- or herself after toilet use or incontinent episode(s), changes bed pad, manages ostomy or catheter, and adjusts clothes. This item does not include transfer on and off the toilet.

G1i. Bed mobility — How the person moves to and from a lying position, turns from side to side, and positions his or her body while in bed.

G1j. Eating — How the person eats and drinks (regardless of skill). Includes intake of nourishment by other means (such as tube feeding or total parenteral nutrition).

Setup help — Assistance characterized by the provision of articles, devices, or preparation necessary for the person's self-performance of an activity. This includes giving or holding out an item the person takes from the helper, if the helper then leaves the person alone to complete the activity. If someone remains nearby to watch over the person, the person is receiving oversight, thus the score would be **"2"** for "Supervision". Following are a few examples of setup help. For the "Personal hygiene" item, setup help might mean providing a washbasin or grooming articles.

Examples of setup help:

For "Walking," setup help might take the form of handing the person a walker or cane.

For "Toilet use," setup help might be handing the person a bedpan or placing within reach the articles necessary for changing an ostomy appliance.

For "Eating," setup help might include cutting meat or opening containers at meals, carrying a tray to a table, or giving one food category at a time.

Weight bearing — Persons require varying degrees of physical assistance to complete ADL tasks. A key concept in scoring the degree of assistance is the degree of weight-bearing support provided. When relating to non-upright positions, such support might take the form of a helper holding the full weight of an arm while assisting the person with putting on a shirt. When relating to standing or walking, such support might mean taking the person's weight by holding him or her under the armpit, or allowing the person to lean on the helper's arm. Guiding movements with minimal physical contact and contact guarding with intermittent physical assistance are **not** considered weight bearing.

Activity did not occur vs. total dependence — Do not confuse a person's total dependence in an ADL activity (code **"6"** for "Total dependence") with nonoccurrence of the activity itself (code **"8"**). For example, even a person who receives tube feedings and no food or fluids by mouth is engaged in eating (receiving nourishment) and must be evaluated under the eating category for his or her level of assistance in the process. A person who is highly involved in giving him- or herself a tube feeding is not totally dependent and should not be coded as **"6"**, but as a lower code, depending on the nature of help received from others.

Process

To describe functioning, the assessor should first get a sense of the episodes in each ADL area over the last 3 days. Determine what the person does for him- or herself and the nature of assistance provided (if any).

When ADL self-performance in an area varies over the last 3 days, identify the three most dependent episodes — that is, the episodes when the person received the greatest care or assistance from others. The summarization that is done to develop the ADL scores (as described below) focuses on the most dependent episodes, providing a picture of the person's need for help from others in managing the ADLs.

In order to summarize ADL self-performance, gather information as follows:

Gather information from multiple sources. For example, talk with the person, family, staff, and others.

Ask questions pertaining to all aspects of the ADL definitions. For example, when discussing "Personal hygiene" (Item G1b), inquire how the person manages washing in the morning, combing hair, brushing teeth, and shaving. A person can be independent in one aspect of personal hygiene yet require extensive assistance in another aspect.

Observe how the person is performing the physical tasks.

Talk with the person to ascertain what he or she does for him- or herself in each ADL, as well as the type and level of assistance provided by others.

If possible, talk with immediate caregivers or family members.

Finally, weigh all responses to come up with a consistent picture of the person's ADL performance for each episode assessed in each area.

Coding

The following are the ADL self-performance scoring rules.

- If all episodes in the last 3 days were performed at the same support level, score the ADL at that level.
  - Note that regarding the scores **"0"** ("Independent"), **"6"** ("Total dependence"), and **"8"** ("Activity did not occur"), this is the **only** situation in which such a score would apply. In other words, to receive one of these scores, all performance episodes must be at the same level.
  - Also note that this rule applies when there was only one performance episode during the 3-day period. For example, if over the course of the 3 days the person moved once between locations on the same floor but was bed-bound for the remainder of the time, then the score for Item G1F, "Locomotion") should be based on the single episode when the person moved.
- If **any** episodes were at level score as **"6"** for "Total dependence" and other episodes were less dependent, the item should be scored as **"5"** for "Maximal assistance".
- **Otherwise**, focus on the three most dependent episodes [or the two most dependent episodes if the ADL was performed twice]. If the most dependent of these episodes would be scored **"1"** for "Independent, setup help only", score the item as **"1"**. If the most dependent of these episodes would receive a higher score, however, the item should receive the score to match the least dependent of those episodes in the range between **"2"** and **"5"**.

In accordance with these rules and the guidelines below, enter the number corresponding to the most correct response.

0. **Independent** — No physical assistance, setup, or supervision in any episode.
1. **Independent, setup help only** — Article or device provided or placed within reach, no physical assistance or supervision in any episode.
2. **Supervision** — Oversight/cuing.
3. **Limited assistance** — Guided maneuvering of limbs, physical guidance without taking weight.
4. **Extensive assistance** — Weight-bearing support (including lifting limbs) by one helper where person still performs 50% or more of subtasks.

5. **Maximal assistance** — Weight-bearing support (including lifting limbs) by 2 or more helpers; **or** weight-bearing support for more than 50% of subtasks.
6. **Total dependence** — Full performance by others during all episodes.
8. **Activity did not occur during entire period**

The following box provides general guidelines for recording accurate ADL self-performance.

Guidelines for Assessing ADL Self-Performance

- The scales in Items G1 are used to record the person's actual level of involvement in self-care and the type and amount of support actually received during the last 3 days.
- Do not record your assessment of the resident's capacity for involvement in self-care — that is, what you believe the resident might be able to do for himself or herself based on demonstrated skills or physical attributes.
- Do not record the type and level of assistance the person "should" be receiving according to the written plan of care. The type and level of assistance actually provided may be quite different from what is indicated in the plan. Record what is actually happening.
- Engage direct care staff from all shifts who have cared for the resident over the last 3 days in discussions regarding the resident's ADL functional performance. Remind staff that the focus is on the last 3 days only. To clarify your own understanding and observations about each ADL activity (bed mobility, locomotion, transfer, etc.) ask probing questions, beginning with the general and proceeding to the more specific.

Example of Conversation

Here is a typical conversation between the RN Assessment Coordinator and a nurse assisstant regarding a person's Bed Mobility assessment:

RN: "Describe to me how Mrs. L positions herself in bed. By that I mean, once she is in bed, how does she move from sitting up to lying down, lying down to sitting up, turning side to side, and positioning herself?"

NA: "She can lie down and sit up by herself, but I help her turn on her side."

RN: "She lies down and sits up without any verbal instructions or physical help?"

NA: "No, I have to remind her to use her trapeze every time. But once I tell her how to do things, she can do it herself."

RN: "How do you help her turn side to side?"

NA: "She can help turn herself by grabbing onto her side rail. I tell her what to do. But she needs me to lift her bottom and guide her legs into a good position."

RN: "Do you lift her by yourself or does someone help you?"

NA: "I do it by myself."

RN: "How many days during the last week did you give this type of help?"

NA: "Every day."

Mrs. L would receive an ADL Self-Performance Code of **"4"** ("Extensive assistance"). Now review the first two exchanges in the conversation between the RN Assessment Coordinator

and nurse assistant. If the RN did not probe further, he or she would not have received enough information to make an accurate assessment of either the person's performance or the nurse assistant's actual workload. Such information is vital to the development of an individualized care plan.

Section G2

G2. Locomotion/Walking

G2a. Primary mode of locomotion

Intent

To record the primary mode of locomotion and type of appliances, aids, or assistive devices the person used over the last 3 days.

Definitions

Cane — A slender stick held in the hand and used for support when walking.

Crutch — A device for aiding a person with walking. Usually it is a long staff with a padded crescent-shaped portion at the top that is placed under the armpit.

Scooter — Motorized vehicle operated by a person for use in getting from one location to another.

Walker — A mobile device used to assist a person with walking. Usually consists of a stable platform made of metal tubing that the person grasps while taking a step. The person then moves the walker forward and takes another step.

Coding

Code for the primary mode of locomotion used by the person indoors within the last 3 days. For persons who walk by pushing a wheelchair in front of them for support, or by using a walker-type device such as a Merry Walker, use code **"1"** for "Walking, uses assistive device".

0. **Walking, no assistive device**
1. **Walking, uses assistive device** — For example, a cane, walker, crutch, or pushing wheelchair
2. **Wheelchair, scooter**
3. **Bed-bound**

G2b. Timed 13-foot (or 4-meter) walk

Intent

This performance test provides a measure of the person's stamina. It is designed to establish an objective benchmark for comparison with the person's performance upon subsequent reassessments. A normal walking speed is about 1.3 seconds per meter (just over 3 feet).

Process

Lay out a straight, unobstructed course. Use a tape measure to measure off the 13 feet (4 meters). If possible, mark the beginning and end of the measured distance using nonstaining tape or another device that can be easily removed and will not damage the person's dwelling.

Say: "When I tell you, begin to walk at a normal pace (with cane/walker if used). This is not a test of how fast you can walk. Stop when I tell you to stop. Is this clear?"

Have the person stand still, with both feet just touching the starting line. Then say: "Begin to walk now."

Start stopwatch (alternately, you can count off seconds out loud — "one-one-thousand, two-one-thousand," etc.) when the person's foot hits the ground with the first step. Stop counting when the person's foot falls beyond the 13-foot (4-meter) mark.

Then say: "You may stop now."

NOTE:

1. The assessor should demonstrate the test before asking the person to do it.
2. The assessor needs to stand very close to the person while he or she is trying to complete the test. Have a chair at hand; if the person becomes weak or is unable to continue, have them sit on the chair.

Coding

This test cannot be done with persons who need any type of physical weight-bearing assistance to walk. For persons who need this type of assistance, use the score **"99"** for "Not tested". If the person is capable of doing the test but chooses not to, enter **"88"** for "Refused to do the test".

For persons who do the test, use the scoring guidelines that follow.

If the person completes the test in less than 30 seconds, enter the number of seconds. (If fewer than 10 seconds, use a leading zero to fill in the first box — for example, **"09"**.)

If the person took 30 or more seconds to complete the test, enter **"30"** as the score.

If the person began the test but did not finish it, enter **"77"** for "Stopped before test complete".

G2c. Distance walked

Intent

To assess the person's independence in walking (includes episodes during therapy, activities, etc.) with help as needed.

Definition

Farthest distance walked at one time without sitting down in the last 3 days, with support as needed.

Process

Ask the person and direct care staff about the person's walking during the last 3 days. Record the farthest distance walked without sitting down.

Coding

0. Did not walk

1. Less than 15 feet (under 5 meters)

2. 15–149 feet (5–49 meters)

3 150–299 feet (50–99 meters)

4. 300+ feet (100+ meters)

5. ½ mile or more (1+ kilometers)

G2d. Distance wheeled self

Intent — To monitor a person's independence in moving about the unit and possibly outdoors in a nonmotorized wheelchair (or scooter).

Definition — The farthest distance the person wheeled him- or herself at one time in the last 3 days (includes independent use of motorized wheelchair).

Process — Ask the person and direct care staff about the person's movement in the unit and outdoors during the last 3 days. Record the farthest distance traveled without a prolonged stop.

Coding

0. Wheeled by others

1. Used motorized wheelchair/scooter

2. Wheeled self less than 15 feet (under 5 meters)

3. Wheeled self 15–149 feet (5–49 meters)

4. Wheeled self 150–299 feet (50–99 meters)

5. Wheeled self 300+ feet (100+ meters)

8. Did not use wheelchair

Section G3

G3. Activity Level

Intent — Moderate physical activity in connection with activities of everyday life or chosen activities can help to keep persons fit in many ways. Below a certain threshold of activity, functional decline may be accelerated. It is possible for persons to participate in exercise programs and show large gains in strength and endurance. Exercises need not be strenuous to provide benefit. Regular walking or wheeling a wheelchair may be included in the total hours as well as physical therapy or less formal exercise.

G3a. Total hours of exercise or physical activity in the LAST 3 DAYS (for example, walking)

Definition — **Exercise or physical activity** — Any exercise that involves at least moderate physical activity, such as walking outdoors, swimming, yoga class, exercise with machines.

Process — Ask the person and direct care staff to describe the person's involvement in physical activity in the last 3 days (for example, walking, exercise).

Coding

If the accumulated time is between 2 hours and 3 hours, use code **"2"**. Hours of exercise do not have to occur all at once on a given day; they may be accumulated over the course of several instances.

0. None

1. Less than 1 hour

2. 1–2 hours — if more than 2 and less than 3 hours, code "2"

3. 3–4 hours

4. More than 4 hours

G3b. **In the LAST 3 DAYS, number of days went out of the house or building in which he or she resides (no matter how short the period)**

Coding

0. No days out

1. Did not go out in last 3 days, but usually goes out over a 3-day period

2. 1–2 days

3. 3 days

Section G4

G4. Physical Function Improvement Potential

Intent

To describe beliefs and characteristics related to the person's functional status that may indicate he or she has the capacity for greater independence and involvement in self-care in at least some ADLs. Even if already highly independent in an activity, the person may believe he or she can do better (for example, walk longer distances, shower independently).

Definitions

G4a. Person believes he or she is capable of improved performance in physical function.

G4b. Care professional believes the person is capable of improved performance in physical function.

Process

Ask the person about his or her goals and what he or she would like to accomplish in the next few weeks or months. Ask if the person thinks he or she could be more self-sufficient given more time and rehabilitation. Listen to and record what the person believes, even it if appears unrealistic. Also, as a clue to whether the person might do better, ask if his or her ability to perform ADLs varies from time to time, or if ADL function or joint range of motion has declined or improved in recent months.

Ask direct care staff (for example, nurse assistants) who routinely care for the person if they think the person is capable of greater independence, or if the person's performance in ADLs varies from time to time. Ask if ADL function or range of motion of joints declined or improved in recent months. You may need to prompt staff to consider such factors as:

- Has self-performance in any ADL varied over the last 3 days (for example, the person usually requires two-person assistance, but on one day transferred out of bed with the assistance of one person)?

- Does the person tire noticeably during most days?
- Does the person avoid an ADL activity even though physically or cognitively capable (for example, refuses to walk alone for fear of falling, demands that others attend to personal care because they do it better)?
- Has the person's performance in any ADL improved?

Coding

0. No

1. Yes

Examples of How to Code Physical Function Improvement Potential

Mr. N, who is cognitively impaired, receives limited physical assistance in locomotion for safety purposes. However, he believes he is capable of walking alone and often gets up and walks by himself when staff isn't looking. **Code "1", Yes, to "a" (Person believes he or she is capable of improved performance in physical function).**

The nurse assistant who totally feeds Mrs. W has noticed in the past week that Mrs. W has made several attempts to pick up finger foods. She believes Mrs. W could become more independent in eating if she received close supervision (cuing) in a small group for restorative care in eating. **Code "1", Yes, to "b" (Care professional believes the person is capable of improved performance in physical function).**

Section E

Mood distress is a serious condition and is associated with diminished quality of life, nonresponsiveness to or nonadherence to treatment regimens, and increased risk of poor outcomes. Depression is often under-detected and therefore inadequately treated even though effective treatments are readily available. Factors associated with mood distress include poor adjustment to living in the facility, increased functional impairment, resistance to daily care, inability to participate in activities, isolation, medical comorbidity, cognitive impairment, and an increased sensitivity to physical pain.

In facilities where staff members have not received specific training in how to evaluate persons with mood distress or behavioral symptoms, an in-service program under the direction of a professional mental health specialist is recommended. Staff in such facilities may find a careful review of the various mental health Clinical Assessment Protocols (for example, Mood, Behavior) to be helpful. This assessment may serve as a crucial first opportunity to identify and respond to such problems, if they are present.

E1. Indicators of Possible Depressed, Anxious, or Sad Mood

Intent

To record the presence and frequency of indicators observed in the last 3 days or prior to the last 3 days, irrespective of the assumed cause of the indicator. In some cases, an indicator may not have been observed in the last 3 days, but it

continues to be "present" and active in a way that has a meaningful impact on the person's current care needs. When combined with other items in the instrument, these indicators can provide information about the severity of the person's condition.

Definitions

The mental state indicators may be expressed verbally or through nonverbal indicators or behaviors that can be monitored by observing the person during usual daily routines.

E1a. Made negative statements — For example, "Nothing matters"; "Would rather be dead"; "What's the use?"; "Regret having lived so long"; "Let me die."

E1b. Persistent anger with self or others — For example, easily annoyed, anger at care received.

- Be aware of both verbal statements of anger as well as nonverbal or behavioral signs of persistent anger.

E1c. Expressions, including nonverbal, of what appear to be unrealistic fears — for example, fear of being abandoned, being left alone, or being with others; intense fear of specific objects or situations.

E1d. Repetitive health complaints — For example, persistently seeks medical attention, incessant concern with body functions.

E1e. Repetitive anxious complaints/concerns (non-health-related) — For example, persistently seeks attention/reassurance regarding schedules, meals, laundry, clothing, and relationships.

E1f. Sad, pained, or worried facial expressions — For example, furrowed brows, constant frowning.

E1g. Crying, tearfulness — Distress may also be expressed through such nonverbal indicators.

E1h. Recurrent statements that something terrible is about to happen — For example, believes he or she is about to die, have a heart attack.

E1i. Withdrawal from activities of interest — Including long-standing activities, being with family or friends.

- This indicator deals with a substantial reduction in the person's level of participation in activities or involvement with their long-standing relations.

E1j. Reduced social interactions

- This indicator deals with changes in the person's overall level of sociability with others, regardless of the closeness of the tie.

E1k. Expressions, including nonverbal, of a lack of pleasure in life (anhedonia) — For example, saying "I don't enjoy anything anymore."

- This indicator measures anhedonia, where the person is no longer able to enjoy activities or situations he or she would normally find pleasurable.

Process

Interview the person directly as you would with a mental status examination. Keep in mind previous statements made by the person and observations you or others have made of the person's verbal and nonverbal indicators of mental health concerns.

Some persons are more verbal about their feelings than others and will make direct statements about their feelings. Other persons will only disclose those feelings when asked directly. When the person verbalizes feelings or reports on the occurrence of behavioral indicators of distressed mood (for example, crying), ask how long these conditions have been present.

Other persons may be unable to articulate their feelings (perhaps because they cannot find the words to describe how they feel, or lack insight or cognitive capacity). Observe the person carefully for any indicator, both at the time of the planned assessment and in any direct contacts you may have with the person during the 3 days covered by the assessment.

Remember to be aware of cultural differences in how these indicators may be manifested. Some persons may be more or less expressive of mental health concerns, emotions, or feelings because of their cultural norms. Be cautious not to minimize your interpretation of an indicator based on your expectations about the person's cultural background. On the other hand, it is important to be especially sensitive to these indicators for persons whose culture may make them more stoic in their expressions.

Consult with direct care staff and clinicians who work with the person or with family or friends who have direct knowledge of the person's typical and current behavior. Relevant information may also be found in the clinical record, although the level of detail in the record can vary. In situations where there is a discrepancy between what is reported by the person, what you observe, and what is reported by others, use your clinical judgment to determine the best response.

Coding

Based on your interaction with and observation of the person, score each indicator based on the person's behavior over the last 3 days, regardless of what you believe to be the underlying cause of the indicator. Remember to code for both the presence of the indicator and the number of days in which it was exhibited, no matter how often it was exhibited per day. Use the following codes:

0. **Not present**
1. **Present but not exhibited in last 3 days** — Use this code only if you know the condition is present and active, even though it was not observed over the last 3 days.
2. **Exhibited on 1–2 of last 3 days**
3. **Exhibited daily in last 3 days**

Example of How to Code for Mood

Mr. F was recently admitted. He becomes upset and angry when his daughter visits. She has visited every day in the last week. He complains to her and staff caregivers that "she put me in this terrible dump." He chastises her "for not taking him into her home," berates her "for being an ungrateful daughter." After she leaves, he becomes remorseful, sad looking, tearful, and says, "What's the use. I'm no good. I wish I died when my wife did." **Code "3" for a. (Made negative statements), b. (Persistent anger with self or others), f. (Sad, pained, or worried**

facial expression), g. (Crying, tearfulness). The remaining Mood items would be coded "0".

APPENDIX II: INTERRAI LTCF – TABLE OF ASSESSMENT

Description	LTCF	Item Values	Description Item Values.	Measure Scale
SECTION A. IDENTIFICATION INFORMATION	**A**			
1.NAME	A1			
First	A1a			
Middle Initial	A1b			
Last	A1c			
Jr/Sr	A1d			
2.GENDER	A2			
Male	A2	1		
Female	A2	2		
3.BIRTHDATE	A3			
4.MARITAL STATUS	A4			
Never married	A4	1		
Married	A4	2		
Partner / Significant other	A4	3		
Widowed	A4	4		
Separated	A4	5		
Divorced	A4	6		
5.NATIONAL NUMERIC IDENTIFIER	A5			
National numeric identifier	A5a			
6.FACILITY / AGENCY PROVIDER NUMBER	A6			
7.CURRENT PAYMENT SOURCES FOR INPATIENT STAY	A7			
Self or family	A7a			
Public Payment (state, municipalities, government, etc.)	A7b			
Health Insurance	A7c			
8. REASON FOR ASSESSMENT	A8			
First assessment	A8	1		
Routine reassessment	A8	2		
Return assessment	A8	3		
Significant change in status reassessment	A8	4		
Discharge assessment, covers last 3	A8	5		
Discharge tracking only	A8	6		

Other—e.g., research	A8	7		
9. ASSESSMENT REFERENCE DATE	A9			
6. POSTAL / ZIP CODE OF USUAL LIVING ARRANGEMENT PRIOR TO ADMISSION [EXAMPLE - USA]	B6			
5. ADMITTED FROM AND USUAL RESIDENCE	B5			
a. Admitted from	B5a			
Private home / apartment / rented room	B5a	1		
Board and care	B5a	2		
Assisted living or semi-independent living	B5a	3		
Mental health residence—e.g., psychiatric group	B5a	4		
Group home for persons with physical disability	B5a	5		
Setting for persons with intellectual disability	B5a	6		
Psychiatric hospital or unit	B5a	7		
Homeless (with or without shelter)	B5a	8		
Long-term care facility (nursing home)	B5a	9		
Rehabilitation hospital / unit	B5a	10		
Hospice facility / palliative care unit	B5a	11		
Acute care hospital	B5a	12		
Correctional facility	B5a	13		
Other	B5a	14		
b. Usual Residential Status	B5b			
Private home / apartment / rented room	B5b	1		
Board and care	B5b	2		
Assisted living or semi-independent living	B5b	3		
Mental health residence—e.g., psychiatric group	B5b	4		
Group home for persons with physical disability	B5b	5		

Setting for persons with intellectual disability	B5b	6		
Psychiatric hospital or unit	B5b	7		
Homeless (with or without shelter)	B5b	8		
Long-term care facility (nursing home)	B5b	9		
Rehabilitation hospital / unit	B5b	10		
Hospice facility / palliative care unit	B5b	11		
Acute care hospital	B5b	12		
Correctional facility	B5b	13		
Other	B5b	14		
7. LIVING ARRANGEMENT PRIOR TO ADMISSION	B7			
Alone	B7	1		
With spouse / partner only	B7	2		
With spouse / partner and other(s)	B7	3		
With child (not spouse / partner)	B7	4		
With parent(s) or guardian(s)	B7	5		
With sibling(s)	B7	6		
With other relative(s)	B7	7		
With non-relative(s)	B7	8		
11.TIME SINCE LAST HOSPITAL STAY Code for most recent instance in LAST 90 DAYS	A11			
No hospitalization within 90 days	A11	0		
31 to 90 days ago	A11	1		
15 to 30 days ago	A11	2		
8 to 14 days ago	A11	3		
In the last 7 days	A11	4		
Now in hospital	A11	5		
Encrypted identifier of individual - OMIT IF OTHER IDENTIFIERS PROVIDED	compute			
SECTION B. INTAKE AND INITIAL HISTORY	**B**			

[Note: Complete Section B at Admission/First Assessment only]	B			
10.PERSON'S EXPRESSED GOALS OF CARE Enter primary goal in boxes at bottom	A10			
Goals of Care - text	A10a			
2. DATE STAY BEGAN	B2			
3. ETHNICITY AND RACE	B3			
Asian	B3c			
Black	B3d			
White	B3f			
Other (specify)	B3g			
Specify	B3ga			
4. PRIMARY LANGUAGE	B4			
English	B4	1		
German	B4	2		
Czech	B4	3		
Dutch	B4	4		
French	B4	5		
Italian	B4	6		
Spanish	B4	7		
Finnish	B4	8		
Hebrew	B4	9		
Turkish	B4	10		
Russian	B4	11		
Arabic	B4	12		
Amharic	B4	13		
Yiddish	B4	14		
Other	B4	15		
specify	B4a			
8. RESIDENTIAL HISTORY OVER LAST 5 YEARS Code for all settings person lived in during 5 YEARS prior to date stay began [B2]	B8			

Long-term care facility—e.g., nursing home	B8a			
Board and care home or assisted living	B8b			
Mental health residence —e.g., psychiatric group home	B8c			
Psychiatric hospital or unit	B8d			
Setting for persons with intellectual disability	B8e			
1. LEVEL OF CONTROL PERSON HAD OVER DECISION TO MOVE INTO LTCF	B1			
Complete	B1	0		
Some control	B1	1		
Little or no control	B1	2		
Could not (would not) respond	B1	8		
9. MENTAL HEALTH Record indicates history of mental illness or intellectual disability	B9			
SECTION C. COGNITION	**C**		***Changes in cognitve patern are of paramount relevance, being able to recognize confusional states...***	
1. COGNITIVE SKILLS FOR DAILY DECISION MAKING Making decisions regarding tasks of daily life—e.g., when to get up or have meals, which clothes to wear or activities to do	C1		Direct questioning by the ROBOT?	
Independent—Decisions consistent, reasonable, and safe	C1	0		
Modified independence—Some difficulty in new situation only	C1	1		
Minimally impaired—In specific recurring situations, decisions become poor or unsafe; cues/supervision necessary at those times	C1	2		
Moderately impaired—Decisions consistently poor or unsafe; cues / supervision required at all times	C1	3		
Severely impaired—Never or rarely makes decisions	C1	4		
No discernable consciousness, coma [Skip to Section G]	C1	5		

2. MEMORY/RECALL ABILITY Code for recall of what was learned or known	C2			
a. Short-term memory OK—Seems / appears to recall after 5 minutes	C2a		Direct questioning by the ROBOT?	
Yes, memory OK	C2a	0		
Memory problem	C2a	1		
c. Procedural memory OK—Can perform all or almost all steps in a multitask sequence without cues	C2c			
Yes, memory OK	C2c	0		
Memory problem	C2c	1		
d. Situational memory OK—Both: recognizes caregivers' names / faces frequently encountered AND knows location of places regularly visited (bedroom, dining room, activity room, therapy room)	C2d		Direct questioning by the ROBOT	
Yes, memory OK	C2d	0		
Memory problem	C2d	1		
b. Long-term memory OK—Seems / appears able to recall distant past	C2b		Direct questioning by the ROBOT	
Yes, memory OK	C2b	0		
Memory problem	C2b	1		
3. PERIODIC DISORDERED THINKING OR AWARENESS [Note: Accurate assessment requires conversations with staff, family or others who have direct knowledge of the person' behavior over this time]	C3			
a. Easily distracted—e.g., episodes of difficulty paying attention; gets sidetracked	C3a			
Behavior not present	C3a	0		
Behavior present, consistent with usual functioning	C3a	1		
Behavior present, appears different from usual functioning (e.g., new onset or worsening; different from a few weeks ago)	C3a	2		

b. Episodes of disorganized speech—e.g., speech is nonsensical, irrelevant, or rambling from subject to subject; loses train of thought	C3b			
Behavior not present	C3b	0		
Behavior present, consistent with usual functioning	C3b	1		
Behavior present, appears different from usual functioning (e.g., new onset or worsening; different from a few weeks ago)	C3b	2		
c. Mental function varies over the course of the day—e.g., sometimes better, sometimes worse	C3c			
Behavior not present	C3c	0		
Behavior present, consistent with usual functioning	C3c	1		
Behavior present, appears different from usual functioning (e.g., new onset or worsening; different from a few weeks ago)	C3c	2		
4. ACUTE CHANGE IN MENTAL STATUS FROM PERSON'S USUAL FUNCTIONING--e.g., restlessness, lethargy, difficult to arouse, altered environmental perception	C4			
5. CHANGE IN DECISION MAKING AS COMPARED TO 90 DAYS AGO (OR SINCE LAST ASSESSMENT)	C5			
Improved	C5	0		
No change	C5	1		
Declined	C5	2		
Uncertain	C5	8		
SECTION D. COMMUNICATION AND VISION	**D**		***Participants having speach, auditive problems will be excluded***	
1. MAKING SELF UNDERSTOOD (Expression) Expressing information content—both verbal and non-verbal	D1			
Understood—Expresses ideas without difficulty	D1	0		
Usually understood—Difficulty finding words or finishing	D1	1		

thoughts BUT if given time, little or no prompting required				
Often understood—Difficulty finding words or finishing thoughts AND prompting usually required	D1	2		
Sometimes understood—Ability is limited to making concrete requests	D1	3		
Rarely or never understood	D1	4		
2. ABILITY TO UNDERSTAND OTHERS (Comprehension) Understanding verbal information content (however able; with hearing appliance normally used)	D2			
Understands—Clear comprehension	D2	0		
Usually understands—Misses some part / intent of message BUT comprehends most conversation	D2	1		
Often understands—Misses some part / intent ofmessage BUT with repetition or explanation canoften comprehend conversation	D2	2		
Sometimes understands—Responds adequately to simple, direct communication only	D2	3		
Rarely or never understands	D2	4		
3. HEARING	D3			
a. Ability to hear (with hearing appliance normally used)	D3a			
Adequate—No difficulty in normal conversation, social interaction, listening to TV	D3a	0		
Minimal difficulty—Difficulty in some environments (e.g., when person speaks softly or is more than 6 feet [2 meters] away)	D3a	1		
Moderate difficulty—Problem hearing normal conversation, requires quiet setting to hear well	D3a	2		
Severe difficulty—Difficulty in all situations (e.g., speaker has to talk loudly or speak very slowly; or person reports that all speech is mumbled)	D3a	3		

No hearing	D3a	4		
b.Hearing aid used	D3b			
4. VISION	D4			
a. Ability to see in adequate light (with glasses or with other visual appliance normally used)	D4a			
Adequate—Sees fine detail, including regular print in newspapers/books	D4a	0		
Minimal difficulty—Sees large print, but not regular print in newspapers/books	D4a	1		
Moderate difficulty—Limited vision; not able to see newspaper headlines, but can identify objects	D4a	2		
Severe difficulty—Object identification in question, but eyes appear to follow objects; sees only light, colors, shapes	D4a	3		
No vision	D4a	4		
b. Visual appliance used	D4b			
SECTION E.MOOD AND BEHAVIOR	**E**			
1. INDICATORS OF POSSIBLE DEPRESSED, ANXIOUS, OR SAD MOOD Code for indicators observed in last 3 days, irrespective of the assumed cause [Note: Whenever possible, ask person]	E1			
a. Made negative statements — e.g., "Nothing matters; Would rather be dead; What's the use; Regret having lived so long; Let me die"	E1a			Textprocessing, speach recognition
Not present	E1a	0		
Present but not exhibited in last 3 days	E1a	1		
Exhibited on 1-2 of last 3 days	E1a	2		
Exhibited daily in last 3 days	E1a	3		
b. Persistent anger with self or others—e.g., easily annoyed, anger at care received	E1b			Acoustic analyisis of speach data, analysis of facial expressions, fused with text processing,

				speach recognition
Not present	E1b	0		
Present but not exhibited in last 3 days	E1b	1		
Exhibited on 1-2 of last 3 days	E1b	2		
Exhibited daily in last 3 days	E1b	3		
c. Expressions, including non-verbal, of what appear to be unrealistic fears—e.g., fear of being abandoned, being left alone, being with others; intense fear of specific objects or situations	E1c			Acoustic analyisis of speach data, analysis of facial expressions, fused with text processing, speach recognition
Not present	E1c	0		
Present but not exhibited in last 3 days	E1c	1		
Exhibited on 1-2 of last 3 days	E1c	2		
Exhibited daily in last 3 days	E1c	3		
d. Repetitive health complaints —e.g., persistently seeks medical attention, incessant concern with body functions	E1d			Specializzed device usage
Not present	E1d	0		
Present but not exhibited in last 3 days	E1d	1		
Exhibited on 1-2 of last 3 days	E1d	2		
Exhibited daily in last 3 days	E1d	3		
e. Repetitive anxious complaints / concerns (nonhealth related)—e.g., persistently seeks attention / reassurance regarding schedules, meals, laundry, clothing, relationships	E1e			
Not present	E1e	0		
Present but not exhibited in last 3 days	E1e	1		
Exhibited on 1-2 of last 3 days	E1e	2		

Exhibited daily in last 3 days	E1e	3		
f. Sad, pained, or worried facial expressions —e.g., furrowed brow, constant frowning	E1f			
Not present	E1f	0		
Present but not exhibited in last 3 days	E1f	1		
Exhibited on 1-2 of last 3 days	E1f	2		
Exhibited daily in last 3 days	E1f	3		
g. Crying, tearfulness	E1g			Accoustic analysis
Not present	E1g	0		
Present but not exhibited in last 3 days	E1g	1		
Exhibited on 1-2 of last 3 days	E1g	2		
Exhibited daily in last 3 days	E1g	3		
h. Recurrent statements that something terrible is about to happen—e.g., believes he or she is about to die, have a heart attack	E1h			Text processing, speach recognition
Not present	E1h	0		
Present but not exhibited in last 3 days	E1h	1		
Exhibited on 1-2 of last 3 days	E1h	2		
Exhibited daily in last 3 days	E1h	3		
i. Withdrawal from activities of interest—e.g., longstanding activities, being with family / friends	E1i			Faceand speaker identification, device usage
Not present	E1i	0		
Present but not exhibited in last 3 days	E1i	1		
Exhibited on 1-2 of last 3 days	E1i	2		
Exhibited daily in last 3 days	E1i	3		

j.Reduced social interactions	E1j			Social network activities logging and processing
Not present	E1j	0		
Present but not exhibited in last 3 days	E1j	1		
Exhibited on 1-2 of last 3 days	E1j	2		
Exhibited daily in last 3 days	E1j	3		
k. Expressions, including non-verbal, of a lack of pleasure in life (anhedonia)—e.g., "I don't enjoy anything anymore"	E1k			
Not present	E1k	0		
Present but not exhibited in last 3 days	E1k	1		
Exhibited on 1-2 of last 3 days	E1k	2		
Exhibited daily in last 3 days	E1k	3		
2. SELF-REPORTED MOOD Ask: "In the last 3 days, how often have you felt..."	E2			
a. Little interest or pleasure in things you normally enjoy?	E2a			
Not in last 3 days	E2a	0		
Not in last 3 days, but often feels that way	E2a	1		
In 1-2 of last 3 days	E2a	2		
Daily in the last 3 days	E2a	3		
Person could not (would not) respond	E2a	8		
b. Anxious, restless, or uneasy?	E2b			
Not in last 3 days	E2b	0		
Not in last 3 days, but often feels that way	E2b	1		
In 1-2 of last 3 days	E2b	2		
Daily in the last 3 days	E2b	3		

Person could not (would not) respond	E2b	8		
c. Sad, depressed, or hopeless?	E2c			
Not in last 3 days	E2c	0		
Not in last 3 days, but often feels that way	E2c	1		
In 1-2 of last 3 days	E2c	2		
Daily in the last 3 days	E2c	3		
Person could not (would not) respond	E2c	8		
3. BEHAVIOR SYMPTOMS Code for indicators observed, irrespective of the assumed cause	E3			
a. Wandering—Moved with no rational purpose, seemingly oblivious to needs or safety	E3a			erratic deambulation patterns
Not present	E3a	0		
Present but not exhibited in last 3 days	E3a	1		
Exhibited on 1-2 of last 3 days	E3a	2		
Exhibited daily in last 3 days	E3a	3		
b. Verbal abuse—e.g., others were threatened, screamed at, cursed at	E3b			Speach recogntion
Not present	E3b	0		
Present but not exhibited in last 3 days	E3b	1		
Exhibited on 1-2 of last 3 days	E3b	2		
Exhibited daily in last 3 days	E3b	3		
c. Physical abuse—e.g., others were hit, shoved, scratched, sexually abused	E3c			
Not present	E3c	0		
Present but not exhibited in last 3 days	E3c	1		
Exhibited on 1-2 of last 3 days	E3c	2		

Exhibited daily in last 3 days	E3c	3		
d. Socially inappropriate or disruptive behavior—e.g., made disruptive sounds or noises, screamed out, smeared or threw food or feces, hoarded, rummaged through other's belongings	E3d			
Not present	E3d	0		
Present but not exhibited in last 3 days	E3d	1		
Exhibited on 1-2 of last 3 days	E3d	2		
Exhibited daily in last 3 days	E3d	3		
e. Inappropriate public sexual behavior or public disrobing	E3e			
Not present	E3e	0		
Present but not exhibited in last 3 days	E3e	1		
Exhibited on 1-2 of last 3 days	E3e	2		
Exhibited daily in last 3 days	E3e	3		
f. Resists care—e.g., taking medications / injections, ADL assistance, eating	E3f		These type of situations normally appear at advanced stages of disease	
Not present	E3f	0		
Present but not exhibited in last 3 days	E3f	1		
Exhibited on 1-2 of last 3 days	E3f	2		
Exhibited daily in last 3 days	E3f	3		
SECTION F. PSYCHOSOCIAL WELL-BEING	**F**			
1. SOCIAL RELATIONSHIPS [Note: Ask person, direct care staff, and family, if available]	F1			
a. Participation in social activities of long-standing interest	F1a			
Never	F1a	0		

More than 30 days ago	F1a	1		
8 to 30 days ago	F1a	2		
4 to 7 days ago	F1a	3		
In last 3 days	F1a	4		
Unable to determine	F1a	8		
b. Visit with a long-standing social relation or family member	F1b			
Never	F1b	0		
More than 30 days ago	F1b	1		
8 to 30 days ago	F1b	2		
4 to 7 days ago	F1b	3		
In last 3 days	F1b	4		
Unable to determine	F1b	8		
c. Other interaction with long-standing social relation or family member—e.g., telephone, e-mail	F1c			
Never	F1c	0		
More than 30 days ago	F1c	1		
8 to 30 days ago	F1c	2		
4 to 7 days ago	F1c	3		
In last 3 days	F1c	4		
Unable to determine	F1c	8		
3. UNSETTLED RELATIONSHIPS	F3			
e. Says or indicates that he/she feels lonely	F3e			
4. MAJOR LIFE STRESSORS IN LAST 90 DAYS— e.g., episode of severe	F4			

personal illness; death or severe illness of close family member / friend; loss of of home; major loss of income/assets; victim of a crime such as robbery or assault; loss of driving license/car				
2. SENSE OF INVOLVEMENT	F2			
a.At ease interacting w/others	F2a			
Not present	F2a	0		
Present but not exhibited in last 3 days	F2a	1		
Exhibited on 1-2 of last 3 days	F2a	2		
Exhibited daily in last 3 days	F2a	3		
b. At ease doing planned or structured activities	F2b			
Not present	F2b	0		
Present but not exhibited in last 3 days	F2b	1		
Exhibited on 1-2 of last 3 days	F2b	2		
Exhibited daily in last 3 days	F2b	3		
c. Accepts invitations into most group activities	F2c			
Not present	F2c	0		
Present but not exhibited in last 3 days	F2c	1		
Exhibited on 1-2 of last 3 days	F2c	2		
Exhibited daily in last 3 days	F2c	3		
d. Pursues involvement in life of facility—e.g., makes or keeps friends; involved in group activities; responds positively to new activities; assists at religious services	F2d			
Not present	F2d	0		
Present but not exhibited in last 3 days	F2d	1		

Exhibited on 1-2 of last 3 days	F2d	2		
Exhibited daily in last 3 days	F2d	3		
e. Initiates interaction(s) with others	F2e			
Not present	F2e	0		
Present but not exhibited in last 3 days	F2e	1		
Exhibited on 1-2 of last 3 days	F2e	2		
Exhibited daily in last 3 days	F2e	3		
f.Reacts positively to interactions initiated by others	F2f			
Not present	F2f	0		
Present but not exhibited in last 3 days	F2f	1		
Exhibited on 1-2 of last 3 days	F2f	2		
Exhibited daily in last 3 days	F2f	3		
g.Adjusts easily change in routine	F2g			
Not present	F2g	0		
Present but not exhibited in last 3 days	F2g	1		
Exhibited on 1-2 of last 3 days	F2g	2		
Exhibited daily in last 3 days	F2g	3		
a. Conflict with or repeated criticism of other care recipients	F3a			
b. Conflict with or repeated criticism of staff	F3b			
c. Staff report persistent frustration in dealing with person	F3c			
d. Family or close friends report feeling overwhelmed by person's illness	F3d			
5. STRENGTHS	F5			

c. Strong and supportive relationship with family	F5c			
a.Consistent positive outlook	F5a			
b. Finds meaning in day-to-day life	F5b			
SECTION G. FUNCTIONAL STATUS	**G**			
1. ADL SELF-PERFORMANCE Consider all episodes over 3-day period. If all episodes are performed at the same level, score ADL at that level. If any episodes at level 6, and others less dependent, score ADL as a 5. Otherwise, focus on the three most dependent episodes [or all episodes if performed fewer than 3 times]. If most dependent episode is 1, score ADL as 1. If not, score ADL as least dependent of those episodes in range 2-5.	G1			
a. Bathing—How takes a full-body bath / shower. Includes how transfers in and out of tub or shower AND how each part of body is bathed: arms, upper and lower legs, chest, abdomen, perineal area - EXCLUDE WASHING OF BACK AND HAIR	G1a		This is an early loss ADL, if dissability appears the activity will not occur. Patients receiving help from third peroson already and having further assisstance, changes will be notified by personnel.	Visual depth
Independent—No physical assistance, setup, or supervision in any episode	G1a	0		
Independent, setup help only—Article or device provided or placed within reach, no physical assistance or supervision in any episode	G1a	1		
Supervision—Oversight / cuing	G1a	2		
Limited assistance—Guided maneuvering of limbs, physical guidance without taking weight	G1a	3		
Extensive assistance—Weight-bearing support (including lifting limbs) by 1 helper where person still performs 50% or more of subtasks	G1a	4		
Maximal assistance—Weight-bearing support (including lifting limbs) by 2+ helpers —OR— Weight-bearing support for more than 50% of subtasks	G1a	5		

Total dependence—Full performance by others during all episodes	G1a	6		
Activity did not occur during entire period	G1a	8		
b. Personal hygiene —How manages personal hygiene, including combing hair, brushing teeth, shaving, applying make-up, washing and drying face and hands - EXCLUDE BATHS ANDSHOWERS	G1b			
Independent—No physical assistance, setup, or supervision in any episode	G1b	0		
Independent, setup help only—Article or device provided or placed within reach, no physical assistance or supervision in any episode	G1b	1		
Supervision—Oversight / cuing	G1b	2		
Limited assistance—Guided maneuvering of limbs, physical guidance without taking weight	G1b	3		
Extensive assistance—Weight-bearing support (including lifting limbs) by 1 helper where person still performs 50% or more of subtasks	G1b	4		
Maximal assistance—Weight-bearing support (including lifting limbs) by 2+ helpers —OR— Weight-bearing support for more than 50% of subtasks	G1b	5		
Total dependence—Full performance by others during all episodes	G1b	6		
Activity did not occur during entire period	G1b	8		
c. Dressing upper body—How dresses and undresses (street clothes, underwear) above the waist, including prostheses, orthotics, fasteners, pullovers, etc.	G1c			Visual depth. Not necesrily detected directly but also through change clothes detection
Independent—No physical assistance, setup, or supervision in any episode	G1c	0		
Independent, setup help only—Article or device provided or placed within reach, no physical assistance or supervision in any episode	G1c	1		

Supervision—Oversight / cuing	G1c	2		
Limited assistance—Guided maneuvering of limbs, physical guidance without taking weight	G1c	3		
Extensive assistance—Weight-bearing support (including lifting limbs) by 1 helper where person still performs 50% or more of subtasks	G1c	4		
Maximal assistance—Weight-bearing support (including lifting limbs) by 2+ helpers —OR— Weight-bearing support for more than 50% of subtasks	G1c	5		
Total dependence—Full performance by others during all episodes	G1c	6		
Activity did not occur during entire period	G1c	8		
d. Dressing lower body—How dresses and undresses (street clothes, underwear) from the waist down including prostheses, orthotics, belts, pants, skirts, shoes, fasteners, etc	G1d			Visual depth. Not necesrily detected directly but also through change clothes detection
Independent—No physical assistance, setup, or supervision in any episode	G1d	0		
Independent, setup help only—Article or device provided or placed within reach, no physical assistance or supervision in any episode	G1d	1		
Supervision—Oversight / cuing	G1d	2		
Limited assistance—Guided maneuvering of limbs, physical guidance without taking weight	G1d	3		
Extensive assistance—Weight-bearing support (including lifting limbs) by 1 helper where person still performs 50% or more of subtasks	G1d	4		
Maximal assistance—Weight-bearing support (including lifting limbs) by 2+ helpers —OR— Weight-bearing support for more than 50% of subtasks	G1d	5		
Total dependence—Full performance by others during all episodes	G1d	6		
Activity did not occur during entire period	G1d	8		

e. Walking—How walks between locations on same floor indoors	G1e			End user recogntion and locatlization and motion pattern recognition (visual depth and range data). Accoustic analyisi
Independent—No physical assistance, setup, or supervision in any episode	G1e	0		
Independent, setup help only—Article or device provided or placed within reach, no physical assistance or supervision in any episode	G1e	1		
Supervision—Oversight / cuing	G1e	2		
Limited assistance—Guided maneuvering of limbs, physical guidance without taking weight	G1e	3		
Extensive assistance—Weight-bearing support (including lifting limbs) by 1 helper where person still performs 50% or more of subtasks	G1e	4		
Maximal assistance—Weight-bearing support (including lifting limbs) by 2+ helpers —OR— Weight-bearing support for more than 50% of subtasks	G1e	5		
Total dependence—Full performance by others during all episodes	G1e	6		
Activity did not occur during entire period	G1e	8		
f. Locomotion—How moves between locations on same floor (walking or wheeling). If in wheelchair, self-sufficiency once in chair	G1f			End user recogntion and locatlization and motion pattern recognition (visual depth and range data). Accoustic analyisi
Independent—No physical assistance, setup, or supervision in any episode	G1f	0		
Independent, setup help only—Article or device provided or placed within reach, no physical assistance or supervision in any episode	G1f	1		
Supervision—Oversight / cuing	G1f	2		
Limited assistance—Guided maneuvering of limbs, physical guidance without taking weight	G1f	3		
Extensive assistance—Weight-bearing support (including lifting limbs) by 1 helper where person still performs 50% or more of subtasks	G1f	4		

Maximal assistance—Weight-bearing support (including lifting limbs) by 2+ helpers —OR— Weight-bearing support for more than 50% of subtasks	G1f	5		
Total dependence—Full performance by others during all episodes	G1f	6		
Activity did not occur during entire period	G1f	8		
g. Transfer toilet—How moves on and off toilet or commode	G1g			End user recogntion and locatlization and motion pattern recognition (visual depth and range data). Accoustic analyisi
Independent—No physical assistance, setup, or supervision in any episode	G1g	0		
Independent, setup help only—Article or device provided or placed within reach, no physical assistance or supervision in any episode	G1g	1		
Supervision—Oversight / cuing	G1g	2		
Limited assistance—Guided maneuvering of limbs, physical guidance without taking weight	G1g	3		
Extensive assistance—Weight-bearing support (including lifting limbs) by 1 helper where person still performs 50% or more of subtasks	G1g	4		
Maximal assistance—Weight-bearing support (including lifting limbs) by 2+ helpers —OR— Weight-bearing support for more than 50% of subtasks	G1g	5		
Total dependence—Full performance by others during all episodes	G1g	6		
Activity did not occur during entire period	G1g	8		
h. Toilet use—How uses the toilet room (or commode, bedpan, urinal), cleanses self after toilet use or incontinent episode(s), changes pad, manages ostomy or catheter, adjusts clothes - EXCLUDE TRANSFER ON AND OFF TOILET	G1h			End user recogntion and locatlization and motion pattern recognition (visual depth and range data). Accoustic analyisi
Independent—No physical assistance, setup, or supervision in any episode	G1h	0		

Independent, setup help only—Article or device provided or placed within reach, no physical assistance or supervision in any episode	G1h	1		
Supervision—Oversight / cuing	G1h	2		
Limited assistance—Guided maneuvering of limbs, physical guidance without taking weight	G1h	3		
Extensive assistance—Weight-bearing support (including lifting limbs) by 1 helper where person still performs 50% or more of subtasks	G1h	4		
Maximal assistance—Weight-bearing support (including lifting limbs) by 2+ helpers —OR— Weight-bearing support for more than 50% of subtasks	G1h	5		
Total dependence—Full performance by others during all episodes	G1h	6		
Activity did not occur during entire period	G1h	8		
i. Bed mobility—How moves to and from lying position, turns from side to side, and positions body while in bed	G1i			Visual, depth, audio analysis. Audio data (for eating) must be at very close range
Independent—No physical assistance, setup, or supervision in any episode	G1i	0		
Independent, setup help only—Article or device provided or placed within reach, no physical assistance or supervision in any episode	G1i	1		
Supervision—Oversight / cuing	G1i	2		
Limited assistance—Guided maneuvering of limbs, physical guidance without taking weight	G1i	3		
Extensive assistance—Weight-bearing support (including lifting limbs) by 1 helper where person still performs 50% or more of subtasks	G1i	4		
Maximal assistance—Weight-bearing support (including lifting limbs) by 2+ helpers —OR— Weight-bearing support for more than 50% of subtasks	G1i	5		
Total dependence—Full performance by others during all episodes	G1i	6		

Activity did not occur during entire period	G1i	8		
j. Eating—How eats and drinks (regardless of skill). Includes intake of nourishment by other means (e.g., tube feeding, total parenteral nutrition)	G1j			Visual, depth, audio analysis. Audio data (for eating) must be at very close range
Independent—No physical assistance, setup, or supervision in any episode	G1j	0		
Independent, setup help only—Article or device provided or placed within reach, no physical assistance or supervision in any episode	G1j	1		
Supervision—Oversight / cuing	G1j	2		
Limited assistance—Guided maneuvering of limbs, physical guidance without taking weight	G1j	3		
Extensive assistance—Weight-bearing support (including lifting limbs) by 1 helper where person still performs 50% or more of subtasks	G1j	4		
Maximal assistance—Weight-bearing support (including lifting limbs) by 2+ helpers —OR— Weight-bearing support for more than 50% of subtasks	G1j	5		
Total dependence—Full performance by others during all episodes	G1j	6		
Activity did not occur during entire period	G1j	8		
2. LOCOMOTION / WALKING	G2			
a.Primary mode of locomotion	G2a			
Walking, no assistive device	G2a	0		
Walking, uses assistive device—e.g., cane, walker, crutch, pushing wheelchair	G2a	1		
Wheelchair, scooter	G2a	2		
Bedbound	G2a	3		
c. Distance walked—Farthest distance walked at one time without sitting down in the LAST 3 DAYS (with support as needed)	G2c			End user recogntion and locatlization and motion pattern recognition (visual depth and range data). Accoustic analyisi

Did not walk	G2c	0		
Less than 15 feet (under 5 meters)	G2c	1		
15-149 feet (5-49 meters)	G2c	2		
150-299 feet (50-99 meters)	G2c	3		
300+ feet (100+ meters)	G2c	4		
1/2 mile or more (1+ kilometers)	G2c	5		
d. Distance wheeled self—Farthest distance wheeled self at one time in the LAST 3 DAYS (includes independent use of motorized wheelchair)	G2d			End user recogntion and locatlization and motion pattern recognition (visual depth and range data). Accoustic analyisi
Wheeled by others	G2d	0		
Used motorized wheelchair / scooter	G2d	1		
Wheeled self less than 15 feet (under 5 meters)	G2d	2		
Wheeled self 15-149 feet (5-49 meters)	G2d	3		
Wheeled self 150-299 feet (50-99 meters)	G2d	4		
Wheeled self 300+ feet (100+ meters)	G2d	5		
Did not use wheelchair	G2d	8		
3. ACTIVITY LEVEL	G3			
a. Total hours of exercise or physical activity in LAST 3 DAYS—e.g., walking	G3a			End user recogntion and locatlization and motion pattern recognition (visual depth and range data). Accoustic analyisi
None	G3a	0		
Less than 1 hour	G3a	1		
1-2 hours	G3a	2		
3-4 hours	G3a	3		
More than 4 hours	G3a	4		

b. In the LAST 3 DAYS, number of days went out of the house or building in which he / she resides (no matter how short the period)	G3b			End user recogntion and locatlization and motion pattern recognition (visual depth and range data). Accoustic analyisi
No days out	G3b	0		
Did not go out in last 3 days, but usually goes out over a 3-day period	G3b	1		
1-2 days	G3b	2		
3 days	G3b	3		
4. PHYSICAL FUNCTION IMPROVEMENT POTENTIAL	G4			
a. Person believes he / she is capable of improved performance in physical function	G4a			
b. Care professional believes person is capable of improved performance in physical function	G4b			
5. CHANGE IN ADL STATUS AS COMPARED TO 90 DAYS AGO, OR SINCE LAST ASSESSMENT IF LESS THAN 90 DAYS AGO	G5			
Improved	G5	0		
No change	G5	1		
Declined	G5	2		
Uncertain	G5	8		
b. Timed 4-meter (13 foot) walk [Lay out a straight unobstructed course. Have person stand in still position, feet just touching start line] Then say: "When I tell you begin to walk at a normal pace (with cane/walker if used). This is not a test of how fast you can walk. Stop when I tell you to stop. Is this clear?" Assessor may demonstrate test. Then say: "Begin to walk now" Start stopwatch (or can count seconds) when first foot falls. End count when foot falls beyond 4-meter mark.Then say:	G2b			

"You may stop now" Enter time in seconds, up to 30 seconds.				
30 or more seconds to walk 4-meters	G2b	30		
Stopped before test complete	G2b	77		
Refused to do the test	G2b	88		
Not tested—e.g., does not walk on own	G2b	99		
SECTION H. CONTINENCE	**H**			
1. BLADDER CONTINENCE	H1		It was not stated on the draft how incontinence was going to be recorded. Just to point out the extreme importance of that sig becaus its prevalence and centinel effect on acute functional/clinical changes	
Continent—Complete control; DOES NOT USE any typecatheter or other urinary collection device	H1	0		
Control with any catheter or ostomy over last 3 days	H1	1		
Infrequently incontinent—Not incontinent over last 3 days, but does have incontinent episodes	H1	2		
Occasionally incontinent—Less than daily	H1	3		
Frequently incontinent—Daily, but some control present	H1	4		
Incontinent—No control present	H1	5		
Did not occur—No urine output from bladder in last 3 days	H1	8		
2. URINARY COLLECTION DEVICE (Exclude pads / briefs)	H2			
None	H2	0		
Condom catheter	H2	1		
Indwelling catheter	H2	2		
Cystostomy, nephrostomy, ureterostomy	H2	3		

3. BOWEL CONTINENCE	H3			
Continent—Complete control; DOES NOT USE any type of ostomy device	H3	0		
Control with ostomy—Control with ostomy device over last 3 days	H3	1		
Infrequently incontinent—Not incontinent over last 3 days, but does have incontinent episodes	H3	2		
Occasionally incontinent—Less than daily	H3	3		
Frequently incontinent—Daily, but some control present	H3	4		
Incontinent—No control present	H3	5		
Did not occur—No bowel movement in the last 3 days	H3	8		
4. OSTOMY	H4			
SECTION I. DISEASE DIAGNOSE	I			
1. DISEASE DIAGNOSES - muscoloskeletal	I1			
a. Hip fracture during LAST 30 DAYS (or since last assessment if less than 30 DAYS)	I1a			
Not present	I1a	0		
Primary diagnosis / diagnoses for current stay	I1a	1		
Diagnosis present, receiving active treatment	I1a	2		
Diagnosis present, monitored but no active treatment	I1a	3		
b. Other fracture during LAST 30 DAYS (or since last assessment if less than 30 DAYS)	I1b			
Not present	I1b	0		
Primary diagnosis / diagnoses for current stay	I1b	1		
Diagnosis present, receiving active treatment	I1b	2		
Diagnosis present, monitored but no active treatment	I1b	3		

1. DISEASE DIAGNOSES - neurological	I1			
c. Alzheimers disease	I1c			
Not present	I1c	0		
Primary diagnosis / diagnoses for current stay	I1c	1		
Diagnosis present, receiving active treatment	I1c	2		
Diagnosis present, monitored but no active treatment	I1c	3		
d. Dementia other than Alzheimers disease	I1d			
Not present	I1d	0		
Primary diagnosis / diagnoses for current stay	I1d	1		
Diagnosis present, receiving active treatment	I1d	2		
Diagnosis present, monitored but no active treatment	I1d	3		
e. Hemiplegia	I1e			
Not present	I1e	0		
Primary diagnosis / diagnoses for current stay	I1e	1		
Diagnosis present, receiving active treatment	I1e	2		
Diagnosis present, monitored but no active treatment	I1e	3		
f. Multiple sclerosis	I1f			
Not present	I1f	0		
Primary diagnosis / diagnoses for current stay	I1f	1		
Diagnosis present, receiving active treatment	I1f	2		
Diagnosis present, monitored but no active treatment	I1f	3		
g. Paraplegia	I1g			
Not present	I1g	0		

Primary diagnosis / diagnoses for current stay	I1g	1		
Diagnosis present, receiving active treatment	I1g	2		
Diagnosis present, monitored but no active treatment	I1g	3		
h. Parkinson's disease	I1h			
Not present	I1h	0		
Primary diagnosis / diagnoses for current stay	I1h	1		
Diagnosis present, receiving active treatment	I1h	2		
Diagnosis present, monitored but no active treatment	I1h	3		
i. Quadriplegia	I1i			
Not present	I1i	0		
Primary diagnosis / diagnoses for current stay	I1i	1		
Diagnosis present, receiving active treatment	I1i	2		
Diagnosis present, monitored but no active treatment	I1i	3		
j. Stroke / CVA	I1j			
Not present	I1j	0		
Primary diagnosis / diagnoses for current stay	I1j	1		
Diagnosis present, receiving active treatment	I1j	2		
Diagnosis present, monitored but no active treatment	I1j	3		
1. DISEASE DIAGNOSES - cardiac or pulmonary	I1			
k. Coronary heart disease	I1k			
Not present	I1k	0		
Primary diagnosis / diagnoses for current stay	I1k	1		
Diagnosis present, receiving active treatment	I1k	2		

Diagnosis present, monitored but no active treatment	I1k	3		
m. Congestive heart failure	I1m			
Not present	I1m	0		
Primary diagnosis / diagnoses for current stay	I1m	1		
Diagnosis present, receiving active treatment	I1m	2		
Diagnosis present, monitored but no active treatment	I1m	3		
l. Chronic obstructive pulmonary disease	I1l			
Not present	I1l	0		
Primary diagnosis / diagnoses for current stay	I1l	1		
Diagnosis present, receiving active treatment	I1l	2		
Diagnosis present, monitored but no active treatment	I1l	3		
1. DISEASE DIAGNOSES - psychiatric	I1			
n. Anxiety	I1n			
Not present	I1n	0		
Primary diagnosis / diagnoses for current stay	I1n	1		
Diagnosis present, receiving active treatment	I1n	2		
Diagnosis present, monitored but no active treatment	I1n	3		
p. Depression	I1p			
Not present	I1p	0		
Primary diagnosis / diagnoses for current stay	I1p	1		
Diagnosis present, receiving active treatment	I1p	2		
Diagnosis present, monitored but no active treatment	I1p	3		
q. Schizophrenia	I1q			

Not present	I1q	0		
Primary diagnosis / diagnoses for current stay	I1q	1		
Diagnosis present, receiving active treatment	I1q	2		
Diagnosis present, monitored but no active treatment	I1q	3		
1. DISEASE DIAGNOSES - infections				
r. Pneumonia	I1r			
Not present	I1r	0		
Primary diagnosis / diagnoses for current stay	I1r	1		
Diagnosis present, receiving active treatment	I1r	2		
Diagnosis present, monitored but no active treatment	I1r	3		
s. Urinary tract infection in LAST 30 DAYS	I1s			
Not present	I1s	0		
Primary diagnosis / diagnoses for current stay	I1s	1		
Diagnosis present, receiving active treatment	I1s	2		
Diagnosis present, monitored but no active treatment	I1s	3		
1. DISEASE DIAGNOSES - others				
t. Cancer	I1t			
Not present	I1t	0		
Primary diagnosis / diagnoses for current stay	I1t	1		
Diagnosis present, receiving active treatment	I1t	2		
Diagnosis present, monitored but no active treatment	I1t	3		
u.Diabetes Mellitus	I1u			
Not present	I1u	0		

Primary diagnosis / diagnoses for current stay	I1u	1		
Diagnosis present, receiving active treatment	I1u	2		
Diagnosis present, monitored but no active treatment	I1u	3		
o. Bipolar disorder	I1o			
Not present	I1o	0		
Primary diagnosis / diagnoses for current stay	I1o	1		
Diagnosis present, receiving active treatment	I1o	2		
Diagnosis present, monitored but no active treatment	I1o	3		
2. OTHER DISEASE DIAGNOSES	I2			
Disease code	I2aa-fa			
Disease diagnoses ICD-9	I2ab-fb			
Disease name	I2ac-fc			
SECTION J. HEALT CONDITION	**J**			
1. FALLS	J1		Direct questioningby the ROBOT if not cogntive impairment	
No fall in last 90 days	J1	0		
No fall in last 30 days, but fell 31-90 days ago	J1	1		
One fall in last 30 days	J1	2		
Two or more falls in last 30 days	J1	3		
3. PROBLEM FREQUENCY Code for presence in last 3 days - balance	J3			
a. Difficult or unable to move self to standing position unassisted	J3a		Identifiction of standing alone pattern	Visual
Not present	J3a	0		
Present but not exhibited in last 3 days	J3a	1		

Exhibited on 1 of last 3 days	J3a	2		
Exhibited on 2 of last 3 days	J3a	3		
Exhibited daily in last 3 days	J3a	4		
b. Difficult or unable to turn self around and face the opposite direction when standing	J3b		Identifiction of turning aroound pattern	Visual
Not present	J3b	0		
Present but not exhibited in last 3 days	J3b	1		
Exhibited on 1 of last 3 days	J3b	2		
Exhibited on 2 of last 3 days	J3b	3		
Exhibited daily in last 3 days	J3b	4		
c.Dizziness	J3c			
Not present	J3c	0		
Present but not exhibited in last 3 days	J3c	1		
Exhibited on 1 of last 3 days	J3c	2		
Exhibited on 2 of last 3 days	J3c	3		
Exhibited daily in last 3 days	J3c	4		
d.Unsteady gait	J3d		Walking pattern analysis	
Not present	J3d	0		
Present but not exhibited in last 3 days	J3d	1		
Exhibited on 1 of last 3 days	J3d	2		
Exhibited on 2 of last 3 days	J3d	3		
Exhibited daily in last 3 days	J3d	4		
3. PROBLEM FREQUENCY Code for presence in last 3 days - cardiac or pulmonary			Direct interview if cognitive OK	

e.Chest pain	J3e		Direct interview if cognitive OK	
Not present	J3e	0		
Present but not exhibited in last 3 days	J3e	1		
Exhibited on 1 of last 3 days	J3e	2		
Exhibited on 2 of last 3 days	J3e	3		
Exhibited daily in last 3 days	J3e	4		
f.Difficulty clearing airway secretion	J3f		Direct interview if cognitive OK	
Not present	J3f	0		
Present but not exhibited in last 3 days	J3f	1		
Exhibited on 1 of last 3 days	J3f	2		
Exhibited on 2 of last 3 days	J3f	3		
Exhibited daily in last 3 days	J3f	4		
3. PROBLEM FREQUENCY Code for presence in last 3 days - psychiatric				
g. Abnormal thought process—e.g., loosening of associations, blocking, flight of ideas, tangentiality, circumstantiality	J3g			
Not present	J3g	0		
Present but not exhibited in last 3 days	J3g	1		
Exhibited on 1 of last 3 days	J3g	2		
Exhibited on 2 of last 3 days	J3g	3		
Exhibited daily in last 3 days	J3g	4		
h. Delusions —Fixed false beliefs	J3h			
Not present	J3h	0		
Present but not exhibited in last 3 days	J3h	1		

Exhibited on 1 of last 3 days	J3h	2		
Exhibited on 2 of last 3 days	J3h	3		
Exhibited daily in last 3 days	J3h	4		
i. Hallucinations —False sensory perceptions	J3i			
Not present	J3i	0		
Present but not exhibited in last 3 days	J3i	1		
Exhibited on 1 of last 3 days	J3i	2		
Exhibited on 2 of last 3 days	J3i	3		
Exhibited daily in last 3 days	J3i	4		
3. PROBLEM FREQUENCY Code for presence in last 3 days - neurological				
j.Aphasia	J3j			
Not present	J3j	0		
Present but not exhibited in last 3 days	J3j	1		
Exhibited on 1 of last 3 days	J3j	2		
Exhibited on 2 of last 3 days	J3j	3		
Exhibited daily in last 3 days	J3j	4		
3. PROBLEM FREQUENCY Code for presence in last 3 days - GI status				
l. Constipation—No bowel movement in 3 days or difficult passage of hard stool	J3l		Direct interview if cognitive OK	
Not present	J3l	0		
Present but not exhibited in last 3 days	J3l	1		
Exhibited on 1 of last 3 days	J3l	2		
Exhibited on 2 of last 3 days	J3l	3		

Exhibited daily in last 3 days	J3l	4		
m.Diarrhea	J3m		Direct interview if cognitive OK	
Not present	J3m	0		
Present but not exhibited in last 3 days	J3m	1		
Exhibited on 1 of last 3 days	J3m	2		
Exhibited on 2 of last 3 days	J3m	3		
Exhibited daily in last 3 days	J3m	4		
k. Acid reflux—Regurgitation of acid from stomach to throat	J3k		Direct interview if cognitive OK	
Not present	J3k	0		
Present but not exhibited in last 3 days	J3k	1		
Exhibited on 1 of last 3 days	J3k	2		
Exhibited on 2 of last 3 days	J3k	3		
Exhibited daily in last 3 days	J3k	4		
n.Vomiting	J3n		Direct interview if cognitive OK	
Not present	J3n	0		
Present but not exhibited in last 3 days	J3n	1		
Exhibited on 1 of last 3 days	J3n	2		
Exhibited on 2 of last 3 days	J3n	3		
Exhibited daily in last 3 days	J3n	4		
3. PROBLEM FREQUENCY Code for presence in last 3 days - sleep problem				
o. Difficulty falling asleep or staying asleep; waking up too early; restlessness; non-restful sleep	J3o		Direct interview if cognitive OK	
Not present	J3o	0		

Present but not exhibited in last 3 days	J3o	1		
Exhibited on 1 of last 3 days	J3o	2		
Exhibited on 2 of last 3 days	J3o	3		
Exhibited daily in last 3 days	J3o	4		
p. Too much sleep—Excessive amount of sleep that interferes with person's normal functioning	J3p		Direct interview if cognitive OK plus visual sensors	
Not present	J3p	0		
Present but not exhibited in last 3 days	J3p	1		
Exhibited on 1 of last 3 days	J3p	2		
Exhibited on 2 of last 3 days	J3p	3		
Exhibited daily in last 3 days	J3p	4		
3. PROBLEM FREQUENCY Code for presence in last 3 days - other				
r. Fever	J3r		Direct interview if cognitive OK plus sensors?	
Not present	J3r	0		
Present but not exhibited in last 3 days	J3r	1		
Exhibited on 1 of last 3 days	J3r	2		
Exhibited on 2 of last 3 days	J3r	3		
Exhibited daily in last 3 days	J3r	4		
s. GI or GU bleeding	J3s		Direct interview if cognitive OK plus sensors?	
Not present	J3s	0		
Present but not exhibited in last 3 days	J3s	1		
Exhibited on 1 of last 3 days	J3s	2		
Exhibited on 2 of last 3 days	J3s	3		

Exhibited daily in last 3 days	J3s	4		
t. Peripheral edema	J3t		Direct interview if cognitive OK	
Not present	J3t	0		
Present but not exhibited in last 3 days	J3t	1		
Exhibited on 1 of last 3 days	J3t	2		
Exhibited on 2 of last 3 days	J3t	3		
Exhibited daily in last 3 days	J3t	4		
q. Aspiration	J3q		Coughing while eating	Sound analysis
Not present	J3q	0		
Present but not exhibited in last 3 days	J3q	1		
Exhibited on 1 of last 3 days	J3q	2		
Exhibited on 2 of last 3 days	J3q	3		
Exhibited daily in last 3 days	J3q	4		
4. DYSPNEA (Shortness of breath)	J4		Direct interview if cognitive OK	
Absence of symptom	J4	0		
Absent at rest, but present when performed moderate activities	J4	1		
Absent at rest, but present when performed normal day-to-day activities	J4	2		
Present at rest	J4	3		
5. FATIGUE Inability to complete normal daily activities—e.g., ADLs, IADLs	J5		Direct interview if cognitive OK	
None	J5	0		
Minimal—Diminished energy but completes normal day-to-day activities	J5	1		
Moderate—Due to diminished energy, UNABLE TO FINISH normal day-to-day activities	J5	2		

Severe—Due to diminished energy, UNABLE TO START SOME normal day-to-day activities	J5	3		
Unable to commence any normal day-to-day activities—Due to diminished energy	J5	4		
6. PAIN SYMPTOMS [Note: Always ask the person about pain frequency, intensity, and control. Observe person and ask others who are in contact with the person.]	J6			
a. Frequency with which person complains or shows evidence of pain (including grimacing, teeth clenching, moaning, withdrawal when touched, or other nonverbal signs suggesting pain)	J6a		Direct interview if cognitive OK	
No pain	J6a	0		
Present but not exhibited in last 3 days	J6a	1		
Exhibited on 1-2 of last 3 days	J6a	2		
Exhibited daily in last 3 days	J6a	3		
b. Intensity of highest level of pain present	J6b			
No pain	J6b	0		
Mild	J6b	1		
Moderate	J6b	2		
Severe	J6b	3		
Times when pain is horrible or excruciating	J6b	4		
c. Consistency of pain	J6c		Direct interview if cognitive OK	
No pain	J6c	0		
Single episode during last 3 days	J6c	1		
Intermittent	J6c	2		
Constant	J6c	3		

d. Breakthrough pain—Times in last 3 days when person experienced sudden, acute flare-ups of pain	J6d		Direct interview if cognitive OK	
e. Pain control—Adequacy of current therapeutic regimen to control pain (from person's point of view)	J6e		Direct interview if cognitive OK	
No issue of pain	J6e	0		
Pain intensity acceptable to person; no treatment regimen or change in regimen required	J6e	1		
Controlled adequately by therapeutic regimen	J6e	2		
Controlled when therapeutic regimen followed, but not always followed as ordered	J6e	3		
Therapeutic regimen followed, but pain control not adequate	J6e	4		
No therapeutic regimen being followed for pain; pain not adequately controlled	J6e	5		
7. INSTABILITY OF CONDITIONS	J7			
a. Conditions / diseases make cognitive, ADL, mood or behavior patterns unstable (fluctuating, precarious, or deteriorating)	J7a			
b. Experiencing an acute episode, or a flare-up of a recurrent or chronic problem	J7b			
c. End-stage disease, 6 or fewer months to live	J7c			
8. SELF-REPORTED HEALTH Ask: "In general, how would you rate your health?"	J8		Direct interview if cognitive OK	
Excellent	J8	0		
Good	J8	1		
Fair	J8	2		
Poor	J8	3		
Could not (would not) respond	J8	8		
9. TOBACCO AND ALCOHOL	J9			

a. Smokes tobacco daily	J9a			
No	J9a	0		
Not in last 3 days, but is usually a daily smoker	J9a	1		
Yes	J9a	2		
b. Alcohol—Highest number of drinks in any "single sitting" in LAST 14 DAYS	J9b			
None	J9b	0		
1	J9b	1		
2 - 4	J9b	2		
5 or more	J9b	3		
2. RECENT FALLS [Skip if last assessed more than 30 days ago or if this is first assessment]	J2			
SECTION K. ORAL AND NUTRITIONAL STATUS	**K**			
1. HEIGHT AND WEIGHT [INCHES AND POUNDS--COUNTRY SPECIFIC] Record (a.) height in inches and (b.) weight in pounds. Base weight on most recent measure in LAST 30 DAYS.	K1			
Height - inches	K1a			
Height - cm	K1a			
Weight - pounds	K1b			
Weight - kilograms	K1b			
2. NUTRITIONAL ISSUES	K2			
a. Weight loss of 5% or more in last 30 days, or 10% or more in last 180 days	K2a			
c. Fluid intake less than 1,000cc per day (less than four 8 oz cups/day)	K2c			
b. Dehydrated, or BUN/Cre ratio>25 [Ratio, country specific]	K2b			

d. Fluid output exceeds input	K2d			
3. MODE OF NUTRITIONAL INTAKE	K3			
Normal—Swallows all types of foods	K3	0		
Modified independent—e.g., liquid is sipped, takes limited solid food, need for modification may be unknown	K3	1		
Requires diet modification to swallow solid food— e.g., mechanical diet (puree, minced, etc.) or only able to ingest specific foods	K3	2		
Requires modification to swallow liquids—e.g., thickened liquids	K3	3		
Can swallow only pureed solids —AND— thickened liquids	K3	4		
Combined oral and parenteral or tube feeding	K3	5		
Nasogastric tube feeding only	K3	6		
Abdominal feeding tube—e.g., PEG tube	K3	7		
Parenteral feeding only—includes all types of parenteral feedings, such as total parenteral nutrition (TPN)	K3	8		
Activity did not occur—During entire period	K3	9		
5. DENTAL OR ORAL	K5			
a. Wears a denture (removable prosthesis)	K5a			
b. Has broken, fragmented, loose, or otherwise nonintact natural teeth	K5b			
e. Reports difficulty chewing	K5e			
d. Reports having dry mouth	K5d			
c. Reports mouth or facial pain / discomfort	K5c			
f. Presents with gum (soft tissue) inflammation or bleeding adjacent to natural teeth or tooth fragments	K5f			
4. PARENTERAL OR ENTERAL INTAKE The	K4			

proportion of TOTAL CALORIES received through parenteral or tube feedings in the LAST 3 DAYS				
No parenteral / enteral tube	K4	0		
Parenteral / enteral tube, but no caloric intake	K4	1		
1% to 25% of total calories through device	K4	2		
26% or more of total calories through device	K4	3		
SECTION L. SKIN CONDITION	**L**			
1. MOST SEVERE PRESSURE ULCER	L1			
No pressure ulcer	L1	0		
Any area of persistent skin redness	L1	1		
Partial loss of skin layers	L1	2		
Deep craters in the skin	L1	3		
Breaks in skin exposing muscle or bone	L1	4		
Not codeable, e.g., necrotic eschar predominant	L1	5		
2. PRIOR PRESSURE ULCER	L2			
3. PRESENCE OF SKIN ULCER OTHER THAN PRESSURE ULCER—e.g., venous ulcer, arterial ulcer, mixed venousarterial ulcer, diabetic foot ulcer	L3			
4. MAJOR SKIN PROBLEMS—e.g., lesions, 2nd or 3rd degree burns, healing surgical wounds	L4			
5. SKIN TEARS OR CUTS—Other than surgery	L5			
6. OTHER SKIN CONDITIONS OR CHANGES IN SKIN CONDITION—e.g., bruises, rashes, itching, mottling, herpes zoster, intertrigo, eczema	L6			
7. FOOT PROBLEMS—e.g., bunions, hammer toes, overlapping toes, structural problems, infections, ulcers	L7			

No foot problems	L7	0		
Foot problems, no limitation in walking	L7	1		
Foot problems limit walking	L7	2		
Foot problems prevent walking	L7	3		
Foot problems, does not walk for other reasons	L7	4		
SECTION N. MEDICATION	**N**			
1. LIST OF ALL MEDICATIONS List all active prescriptions, and any non-prescribed (over thecounter) medications taken in the LAST 3 DAYS[Note: Use computerized records if possible, hand enter only whenabsolutely necessary].For each drug record:	N1			
a. Name	N1a			
b. Dose—A number such as 0.5, 5, 150, 300. [NOTE: Never write a zero by itself after a decimal point (X mg). Always use a zero before a decimal point (0.X mg).]	N1b			
c. Unit—Code using the following list:	N1c			
gtts (Drops)	N1c	gtts		
gm (Gram)	N1c	gm		
L (Liters)	N1c	L		
mcg (Microgram)	N1c	mcg		
mEq (Milli-equivalent)	N1c	mEq		
mg (Milligram)	N1c	mg		
ml (Milliliter)	N1c	ml		
oz (Ounce)	N1c	oz		
Puffs	N1c	Puffs		
% (Percent)	N1c	%		
Units	N1c	units		
OTH (Other)	N1c	OTH		
d. Route of administration—Code using the following list:	N1d			
PO (By mouth/oral)	N1d	PO		
SL (Sublingual)	N1d	SL		

IM (Intramuscular)	N1d	IM		
IV (Intravenous)	N1d	IV		
Sub-Q (Subcutaneous)	N1d	Sub-Q		
REC (Rectal)	N1d	REC		
TOP (Topical)	N1d	TOP		
IH (Inhalation)	N1d	IH		
NAS (Nasal)	N1d	NAS		
ET (Enteral Tube)	N1d	ET		
TD (Transdermal)	N1d	TD		
EYE (Eye)	N1d	EYE		
OTH (Other)	N1d	OTH		
e. Freq—Code the number of times per day, week, or month themedication is administered using the following list:	N1e			
Q1H (Every hour)	N1e	Q1H		
Q2H (Every 2 hours)	N1e	Q2H		
Q3H (Every 3 hours)	N1e	Q3H		
Q4H (Every 4 hours)	N1e	Q4H		
Q6H (Every 6 hours)	N1e	Q6H		
Q8H (Every 8 hours)	N1e	Q8H		
Daily	N1e			
BED (At bedtime)	N1e	BED		
BID (2 times daily)	N1e	BID		
(includes every 12 hrs)	N1e			
TID (3 times daily)	N1e	TID		
QID (4 times daily)	N1e	QID		
5D (5 times daily)	N1e	5D		
Q2D (Every other day)	N1e	Q2D		
Q3D (Every 3 days)	N1e	Q3D		
Weekly	N1e			
2W (2 times weekly)	N1e	2W		
3W (3 times weekly)	N1e	3W		
4W (4 times weekly)	N1e	4W		
5W (5 times weekly)	N1e	5W		
6W (6 times weekly)	N1e	6W		
1M (Monthly)	N1e	1M		
2M (Twice every month)	N1e	2M		
OTH (Other)	N1e	OTH		

f. PRN	N1f			
g. Computer-entered drug code	N1g			
2. ALLERGY TO ANY DRUG	N2			
No known drug allergies	N2	0		
Yes	N2	1		
SECTION O. TREATMENTS AND PROCEDURES	**O**			
1. PREVENTION	O1			
f. Influenza vaccine in LAST YEAR	O1f			
h. Pneumovax vaccine in LAST 5 YEARS or after age 65	O1h			
g. Mammogram or breast exam in LAST 2 YEARS (for women)	O1g			
a. Blood pressure measured in LAST YEAR	O1a			
c. Dental exam in LAST YEAR	O1c			
e. Hearing exam in LAST 2 YEARS	O1e			
d. Eye exam in LAST YEAR	O1d			
b. Colonoscopy test in LAST 5 YEARS	O1b			
2 . TREATMENTS AND PROGRAMS RECEIVED OR SCHEDULED IN THE LAST 3 DAYS (OR SINCE LAST ASSESSMENT IF LESS THAN 3 DAYS) - treatments	O2			
a.Chemotherapy	O2a			
Not ordered AND did not occur	O2a	0		
Ordered, not implemented	O2a	1		
1-2 of last 3 days	O2a	2		
Daily in last 3 days	O2a	3		
b.Dialysis	O2b			

Not ordered AND did not occur	O2b	0		
Ordered, not implemented	O2b	1		
1-2 of last 3 days	O2b	2		
Daily in last 3 days	O2b	3		
c. Infection control— e.g., isolation, quarantine	O2c			
Not ordered AND did not occur	O2c	0		
Ordered, not implemented	O2c	1		
1-2 of last 3 days	O2c	2		
Daily in last 3 days	O2c	3		
d.IV Medication	O2d			
Not ordered AND did not occur	O2d	0		
Ordered, not implemented	O2d	1		
1-2 of last 3 days	O2d	2		
Daily in last 3 days	O2d	3		
e.Oxygen therapy	O2e			
Not ordered AND did not occur	O2e	0		
Ordered, not implemented	O2e	1		
1-2 of last 3 days	O2e	2		
Daily in last 3 days	O2e	3		
f.Radiation	O2f			
Not ordered AND did not occur	O2f	0		
Ordered, not implemented	O2f	1		
1-2 of last 3 days	O2f	2		

Daily in last 3 days	O2f	3		
g.Suctioning	O2g			
Not ordered AND did not occur	O2g	0		
Ordered, not implemented	O2g	1		
1-2 of last 3 days	O2g	2		
Daily in last 3 days	O2g	3		
h.Tracheostomy care	O2h			
Not ordered AND did not occur	O2h	0		
Ordered, not implemented	O2h	1		
1-2 of last 3 days	O2h	2		
Daily in last 3 days	O2h	3		
i.Transfusion	O2i			
Not ordered AND did not occur	O2i	0		
Ordered, not implemented	O2i	1		
1-2 of last 3 days	O2i	2		
Daily in last 3 days	O2i	3		
j. Ventilator or respirator	O2j			
Not ordered AND did not occur	O2j	0		
Ordered, not implemented	O2j	1		
1-2 of last 3 days	O2j	2		
Daily in last 3 days	O2j	3		
k.Wound care	O2k			
Not ordered AND did not occur	O2k	0		

Ordered, not implemented	O2k	1		
1-2 of last 3 days	O2k	2		
Daily in last 3 days	O2k	3		
2 . TREATMENTS AND PROGRAMS RECEIVED OR SCHEDULED IN THE LAST 3 DAYS (OR SINCE LAST ASSESSMENT IF LESS THAN 3 DAYS) - programs	O2			
l.Scheduled toileting program	O2l			
Not ordered AND did not occur	O2l	0		
Ordered, not implemented	O2l	1		
1-2 of last 3 days	O2l	2		
Daily in last 3 days	O2l	3		
m.Palliative care program	O2m			
Not ordered AND did not occur	O2m	0		
Ordered, not implemented	O2m	1		
1-2 of last 3 days	O2m	2		
Daily in last 3 days	O2m	3		
n.Turning/repositioning program	O2n			
Not ordered AND did not occur	O2n	0		
Ordered, not implemented	O2n	1		
1-2 of last 3 days	O2n	2		
Daily in last 3 days	O2n	3		
3 . THERAPY/NURSING SERVICES IN LAST 7 DAYS - e.g. terapist or therapy assistant under directio of therapist [Note: count only post admission therapies]	O3			

a. Physical therapy	O3a			
# of days administred for 15 minutes or more	O3aB			
Total # of minutes provided in LAST 7 DAYS (or ordered if days administred = 0 and days scheduled > 0)	O3aC			
# of days treatment scheduled in the LAST 7 DAYS	O3aA			
b. Occupational therapy	O3b			
# of days administred for 15 minutes or more	O3bB			
Total # of minutes provided in LAST 7 DAYS (or ordered if days administred = 0 and days scheduled > 0)	O3bC			
# of days treatment scheduled in the LAST 7 DAYS	O3bA			
c. Speech-language pathology and audiology services	O3c			
# of days administred for 15 minutes or more	O3cB			
Total # of minutes provided in LAST 7 DAYS (or ordered if days administred = 0 and days scheduled > 0)	O3cC			
# of days treatment scheduled in the LAST 7 DAYS	O3cA			
f. Psychological therapy (by any licensed mental health professional)	O3f			
# of days administred for 15 minutes or more	O3fB			
Total # of minutes provided in LAST 7 DAYS (or ordered if days administred = 0 and days scheduled > 0)	O3fC			
# of days treatment scheduled in the LAST 7 DAYS	O3fA			
d. Respiratory therapy	O3d			
# of days administred for 15 minutes or more	O3dB			
Total # of minutes provided in LAST 7 DAYS (or ordered if days administred = 0 and days scheduled > 0)	O3dC			
# of days treatment scheduled in the LAST 7 DAYS	O3dA			

e. Functional rehabilitation or walking program by licensed nurse	O3e			
# of days administred for 15 minutes or more	O3eB			
Total # of minutes provided in LAST 7 DAYS (or ordered if days administred = 0 and days scheduled > 0)	O3eC			
# of days treatment scheduled in the LAST 7 DAYS	O3eA			
4. HOSPITAL AND EMERGENCY ROOM USE Code for number of times in LAST 90 DAYS (or since last assessment if LESS THAN 90 DAYS)	O4			
a. Inpatient acute care hospital with overnight stay	O4a			
b. Emergency room visit (not counting overnight stay)	O4b			
7. RESTRICTIVE DEVICES	O7			
a. Full bed rails on all open sides of bed	O7a			
Not used	O7a	0		
Used less than daily	O7a	1		
Used daily—Nights only	O7a	2		
Used daily—Days only	O7a	3		
Used night and days, but not constant	O7a	4		
Constant use for full 24 hours (may include periodic releases)	O7a	5		
b. Trunk restraint	O7b			
Not used	O7b	0		
Used less than daily	O7b	1		
Used daily—Nights only	O7b	2		
Used daily—Days only	O7b	3		
Used night and days, but not constant	O7b	4		

Constant use for full 24 hours (may include periodic releases)	O7b	5		
c.Chair prevents rising	O7c			
Not used	O7c	0		
Used less than daily	O7c	1		
Used daily—Nights only	O7c	2		
Used daily—Days only	O7c	3		
Used night and days, but not constant	O7c	4		
Constant use for full 24 hours (may include periodic releases)	O7c	5		
5. PHYSICIAN VISITS Number of days in LAST 14 DAYS (or since admission if less than 14 days in facility) physician examined person.Include authorized assistant or practitioner. Enter 0 if None	O5			
6. PHYSICIAN ORDERS Number of days in LAST 14 DAYS (or since admission if less than 14 days in facility) physician changed person's orders. Include authorized assistant or practitioner. Do not include order renewals without changes. Enter 0 if None	O6			
SECTION P. RESPONSIBILITY AND DIRECTIVES	**P**			
1. RESPONSIBILITY / LEGAL GUARDIAN	P1			
a. Legal guardian	P1a			
b. Other legal oversight	P1b			
c. Durable power of attorney / health care	P1c			
d. Durable power attorney / financial	P1d			
e. Family member responsible	P1e			
f. Other	P1f			

specify	P1fa			
2. ADVANCE DIRECTIVES	P2			
a. Advance directives for not resuscitating	P2a			
Not in place	P2a	0		
In place	P2a	1		
b. Advance directives for not intubating	P2b			
Not in place	P2b	0		
In place	P2b	1		
c. Advance directives for not hospitalizing	P2c			
Not in place	P2c	0		
In place	P2c	1		
d. Advance directives for not tube feeding	P2d			
Not in place	P2d	0		
In place	P2d	1		
e. Advance directives for medication restriction	P2e			
Not in place	P2e	0		
In place	P2e	1		
SECTION Q. DISCHARGE POTENTIAL	**Q**			
1. DISCHARGE POTENTIAL	Q1			
a. Expresses / indicates preference to return to or remain in the community	Q1a			
b. Has a support person who is positive towards discharge or maintaining residence in community	Q1b			
c. Has housing available in community	Q1c			

2. How long person is expected to stay in the current setting or under the care of this service prior to discharge to community (count from assessment reference date, including that day)	Q2			
1-7 days	Q2	0		
8-14 days	Q2	1		
15-30 days	Q2	2		
31-90 days	Q2	3		
91 or more days	Q2	4		
Discharge to community not expected	Q2	5		
SECTION M. ACTIVITY PURSUIT	**M**		***Some of them could be ragarded as adavanced activities of daily living and have close relationship with environment and social interaction***	
1. AVERAGE TIME INVOLVED IN ACTIVITIES—e.g., alone, insocial group [Note: When awake and not receiving treatments or ADL care]	M1			
Most—more than 2/3 of time	M1	0		
Some—from 1/3 to 2/3 of time	M1	1		
Little—less than 1/3 of time	M1	2		
None	M1	3		
2. ACTIVITY PREFERENCES AND INVOLVEMENT (adapted to current abilities)	M2			
a. Cards, games, or puzzles	M2a			
No preference, not involved in last 3 days	M2a	0		
No preference, involved in last 3 days	M2a	1		
Preferred, not involved	M2a	2		
Preferred, regularly involved but not in last 3 days	M2a	3		

Preferred, involved in last 3 days	M2a	4		
b.Computer activity	M2b			
No preference, not involved in last 3 days	M2b	0		
No preference, involved in last 3 days	M2b	1		
Preferred, not involved	M2b	2		
Preferred, regularly involved but not in last 3 days	M2b	3		
Preferred, involved in last 3 days	M2b	4		
c. Conversing or talking on the phone	M2c			
No preference, not involved in last 3 days	M2c	0		
No preference, involved in last 3 days	M2c	1		
Preferred, not involved	M2c	2		
Preferred, regularly involved but not in last 3 days	M2c	3		
Preferred, involved in last 3 days	M2c	4		
d. Crafts or arts	M2d			
No preference, not involved in last 3 days	M2d	0		
No preference, involved in last 3 days	M2d	1		
Preferred, not involved	M2d	2		
Preferred, regularly involved but not in last 3 days	M2d	3		
Preferred, involved in last 3 days	M2d	4		
e. Dancing	M2e			
No preference, not involved in last 3 days	M2e	0		
No preference, involved in last 3 days	M2e	1		
Preferred, not involved	M2e	2		

Preferred, regularly involved but not in last 3 days	M2e	3		
Preferred, involved in last 3 days	M2e	4		
g. Exercise or sports	M2g			
No preference, not involved in last 3 days	M2g	0		
No preference, involved in last 3 days	M2g	1		
Preferred, not involved	M2g	2		
Preferred, regularly involved but not in last 3 days	M2g	3		
Preferred, involved in last 3 days	M2g	4		
h. Gardening or plants	M2h			
No preference, not involved in last 3 days	M2h	0		
No preference, involved in last 3 days	M2h	1		
Preferred, not involved	M2h	2		
Preferred, regularly involved but not in last 3 days	M2h	3		
Preferred, involved in last 3 days	M2h	4		
i.Helping others	M2i			
No preference, not involved in last 3 days	M2i	0		
No preference, involved in last 3 days	M2i	1		
Preferred, not involved	M2i	2		
Preferred, regularly involved but not in last 3 days	M2i	3		
Preferred, involved in last 3 days	M2i	4		
j. Music or singing	M2j			
No preference, not involved in last 3 days	M2j	0		
No preference, involved in last 3 days	M2j	1		

Preferred, not involved	M2j	2		
Preferred, regularly involved but not in last 3 days	M2j	3		
Preferred, involved in last 3 days	M2j	4		
k.Pets	M2k			
No preference, not involved in last 3 days	M2k	0		
No preference, involved in last 3 days	M2k	1		
Preferred, not involved	M2k	2		
Preferred, regularly involved but not in last 3 days	M2k	3		
Preferred, involved in last 3 days	M2k	4		
l. Reading, writing, or crossword puzzles	M2l			
No preference, not involved in last 3 days	M2l	0		
No preference, involved in last 3 days	M2l	1		
Preferred, not involved	M2l	2		
Preferred, regularly involved but not in last 3 days	M2l	3		
Preferred, involved in last 3 days	M2l	4		
m. Spiritual or religious activities	M2m			
No preference, not involved in last 3 days	M2m	0		
No preference, involved in last 3 days	M2m	1		
Preferred, not involved	M2m	2		
Preferred, regularly involved but not in last 3 days	M2m	3		
Preferred, involved in last 3 days	M2m	4		
n.Trips/shopping	M2n			
No preference, not involved in last 3 days	M2n	0		

No preference, involved in last 3 days	M2n	1		
Preferred, not involved	M2n	2		
Preferred, regularly involved but not in last 3 days	M2n	3		
Preferred, involved in last 3 days	M2n	4		
o. Walking or wheeling outdoors	M2o			
No preference, not involved in last 3 days	M2o	0		
No preference, involved in last 3 days	M2o	1		
Preferred, not involved	M2o	2		
Preferred, regularly involved but not in last 3 days	M2o	3		
Preferred, involved in last 3 days	M2o	4		
p. Watching TV or listening to radio	M2p			
No preference, not involved in last 3 days	M2p	0		
No preference, involved in last 3 days	M2p	1		
Preferred, not involved	M2p	2		
Preferred, regularly involved but not in last 3 days	M2p	3		
Preferred, involved in last 3 days	M2p	4		
f. Discussing/reminiscing about life	M2f			
No preference, not involved in last 3 days	M2f	0		
No preference, involved in last 3 days	M2f	1		
Preferred, not involved	M2f	2		
Preferred, regularly involved but not in last 3 days	M2f	3		
Preferred, involved in last 3 days	M2f	4		
3. TIME ASLEEP DURING DAY	M3		Changes in this pattern could also be of relevance. The challenge would be to differentiate coding,	End user recogntion and locatlization and motion pattern recognition (visual

				depth and range data)
Awake all or most of time (no more than one nap in the morning or afternoon)	M3	0	.	
Had multiple naps	M3	1		
Asleep most of the time, but some periods awake and alert (e.g., at meals)	M3	2		
Largely asleep or unresponsive	M3	3		
SECTION R. DISCHARGE	**R**			
1. LAST DAY OF STAY	R1			
2. DISCHARGED TO	R2			
Private home / apartment / rented room	R2	1		
Board and care	R2	2		
Assisted living or semi-independent living	R2	3		
Mental health residence—e.g., psychiatric group home	R2	4		
Group home for persons with physical disability	R2	5		
Setting for persons with intellectual disability	R2	6		
Psychiatric hospital or unit	R2	7		
Homeless (with or without shelter)	R2	8		
Long-term care facility (nursing home)	R2	9		
Rehabilitation hospital / unit	R2	10		
Hospice facility / Palliative care unit	R2	11		
Acute care hospital	R2	12		
Correctional facility	R2	13		
Other	R2	14		

Deceased	R2	15		
3. SCHEDULED TO RECEIVE HOME CARE SERVICES AT DISCHARGE	R3			
SECTION S. ASSESMENT INFORMATION	**S**			
SIGNATURE OF PERSON COORDINATING / COMPLETING THE ASSESSMENT	S1			
2. Date assessment signed as complete	S2			