Disability and Rehabilitation



Linking the EASY-Care Standard to the International Classification of Functioning, Disability and Health

Journal:	Disability and Rehabilitation	
Manuscript ID:	TIDS-12-2012-032.R1	
Manuscript Type:	Research Paper	
Keywords:	EASY-Care Standard, International Classification of Functioning, Disability and Health, Elderly, Quality of Life	
SCHOLARONE™ Manuscripts		

Implications for Rehabilitation

- The integration of the universal language of the ICF in the EASY-Care potentiates the use of this comprehensive instrument in assessing older people needs at primary care settings.
- The information obtained with the EASY-Care Standard can be worldwide understood and can be used to plan rehabilitation interventions at community settings for older adults.



1	Abstract
2	Purpose: This study aimed to document the content of the EASY-Care Standard questionnaire to the
3	International Classification of Functioning, Disability and Health (ICF) and present its ICF Core Set.
4	Method: The EASY-Care was linked to the ICF by two trained health professionals according to the
5	established linking rules. The agreement between the health professionals was determined using the
6	Cohen's kappa.
7	Results: The agreement between the two health professionals was almost perfect for each level of the
8	ICF (Cohen's kappas between 0.91 and 0.97). The 65 items of the EASY-Care were linked to 61
9	different ICF categories, 16 (26%) from the Body functions component, 3 from the Body structures
10	(5%), 30 from the Activities and participation (49%) and 12 from the Environmental factors (20%).
11	Twelve concepts could not be linked to the ICF at all: 6 were classified as Personal factors, 1 as not
12	defined-general health and 5 were not classified.
13	Conclusions: The integration of the universal language of the ICF in the EASY-Care illustrates the
14	potential of use this instrument in primary care settings at community level.
15	Keywords: EASY-Care Standard; International Classification of Functioning, Disability and Health;
16	Elderly; Quality of Life.
17	
	Elderly; Quality of Life.

Introduction

In 2009, an estimate of 737 million people worldwide were 60 years old or over [1]. This number is projected to increase to 2 billion in 2050, by which time older people will be outnumbering children (people aged 0 to 14 years). The demographic change poses huge challenges to primary and community care settings, as populations age chronic disease rates also rise [2]. According to the World Health Organization (WHO), preventive health care and screening for early disease detection and management has been considered a priority in the primary health care setting at the community level. However, there are significant time limitations in primary care [3], and thus health and social professionals tend to use measures of health care utilization instead of health and social outcomes or quality of life [4], despite knowing that there is much room for improvement in quality of geriatric care [3]. To overcome these difficulties the Elderly Assessment System (EASY-Care), a quick and comprehensive assessment instrument, which enables a multidimensional health and social assessment of older people (over 64 years old), has been developed [5]. The EASY-Care is recommended by the WHO [5] since it "establishes a link with quality of life concepts and the measurement of subjective well-being" [6 p. 197]. The instrument also measures independence, risk of falls, risk of breakdown in care, depression and cognitive impairment. These subscores are prior determinants for defining needs and care planning in this population. The reliability, validity and costeffectiveness of this instrument has been tested across the globe and appears to be high, which facilitates its incorporation into routine practice in primary and community care settings [7]. However, without its contents being mapped to the International Classification of Functioning, Disability and Health (ICF), which is the common language for describing health and health-related states, the results cannot be compared with the ones obtained from other measures (e.g., Barthel Index) and which mapping to ICF has already been performed [8]. A national and international database about functioning and health, needs instruments such as EASY-Care to develop an ICF Core Set to describe functioning and disability of older people. This core set can also include categories that are not been covered by ICF however, are considered crucial for older people. This may contribute for the development of a new construct of what is functioning and disability among older people. The ICF can guide content analyses of the different measures and enhance the interpretation of data when those measures have been previously linked. However, to the best of our knowledge, the

- 1 content of the EASY-Care has never been linked to the ICF. Therefore, this study aimed to examine
- the content of EASY-Care Standard questionnaire to the ICF.
- 3 Methods
- 4 A study was conducted to identify the ICF categories that best described the content of each item of
- 5 the EASY-Care Standard.
- 6 Instruments
- 7 EASY-Care Standard
- 8 The EASY-Care Standard was developed on behalf of the European Regional office of the WHO [5]
- 9 and has been validated for 15 languages [9]. The instrument consists of a set of brief questionnaires
- 10 or single items derived from well-established instruments, i.e., Barthel Index [10], Duke OARS IADL
- 11 Scale [11], Short Form (36) Health Survey (SF-36) [12], a brief cognitive impairment test [13], the four-
- item geriatric depression scale [14] and the WHO 11 countries survey instrument [15]. It promotes a
- 13 common approach, based on person-centred care and multidisplinary practice which focuses more on
- the quality of life of the older person rather than on his/her illnesses. Its domains include Seeing,
- 15 Hearing & Communicating; Looking after yourself; Getting around; Your safety, Your accommodation
- and finance; Staying healthy; Your mental health and well-being; Information related with medication.
- 17 Higher scores in each domain mean a worse perception of functioning and well-being. It also
- 18 generates scores for risk of breakdown in care, risk of falls, level of (in)dependence, depression and
- 19 cognitive impairment screening being particularly useful within the context of primary care and people
- 20 living in the community. It can be completed as a self-assessment or by practitioner in an interview. In
- 21 this study, we used the Portuguese version of EASY-Care Standard [16].
- *ICF*
- 23 The ICF is a general health status framework [6]. It has two parts, each with two components: part 1 -
- 24 Functioning and Disability, with Body functions, Body structures and Activities and participation
- 25 components; and part 2 Contextual Factors, with Environmental factors and Personal factors. The
- 26 ICF uses an alphanumeric system in which the letters b, s, d and e are used to denote Body functions,
- 27 Body structures, Activities and participation, and Environmental factors, respectively. These letters are
- 28 followed by a numeric code that starts with the chapter number, which corresponds to the first level (1
- 29 digit), followed by the second level (2 digits), and the third and fourth levels (1 digit each). Personal
- 30 factors are not yet classified in ICF. Therefore, four lists of categories can be obtained to characterise
- 31 Body functions, Body structures, Activities and participation and Environmental factors.

- 1 Linking procedures
- The 65 items of the EASY-Care were linked to the ICF according to published linking rules [8,17,18].
- Two health professionals, physiotherapists, trained in applying ICF as well as in the linking rules,
- 4 independently linked each concept included in the EASY-Care to the most precise ICF category. The
- 5 linking process was divided into three phases: phase 1 identification of the meaningful concepts, a
- 6 short sentence or expression that describe a concrete aspect of functioning; phase 2 linking the
- 7 meaningful concepts to the ICF code and category; and phase 3 organisation of the ICF categories
- 8 comprised in the EASY-Care.
- 9 When the same item comprised different constructs, it was linked to more than one ICF category.
- 10 Items that clearly referred to Personal factors, as defined in the ICF, but the meaningful concept is not
- contained and coded in the ICF, were identified as pf (personal factor). If the information provided by
- the meaningful concept was not sufficient for making a decision about the most precise ICF category,
- items should be assigned *nd* (not definable). The meaningful concepts referring to quality of life in
- 14 general were assigned *nd-gh* (not definable-general health). Finally, if the meaningful concept is not
- 15 contained in the ICF and it is not a personal factor, this meaningful concept is assigned nc (not
- 16 covered).
- 17 Data analysis
- 18 The agreement between the two health professionals was determined with the Cohen's kappa for
- 19 each level of the ICF classification [19]. The value of Cohen's kappa ranges from 0 to 1 and can be
- 20 categorised as: slight agreement (0.0-0.20), fair agreement (0.21-0.40), moderate agreement (0.41-
- 21 0.60), substantial agreement (0.61-0.80) and almost perfect agreement (≥0.80) [20]. All statistical
- 22 analyses were performed using PASW Statistics (Version 18.0, SPSS Inc., Chicago, IL).
- 23 Disagreements were discussed and a consensus obtained.
- 24 Results

- 25 Inter-observer agreement
- The inter-observer agreement between the two health professionals was almost perfect for the ICF
- component (0.91; 95% CI 0.83-0.98), first (0.97; 95% CI 0.92-1), second (0.95; 95% CI 0.90-1) and
- third level (0.97; 95% CI 0.89-1), with Cohen's kappa.
- 29 Linking the EASY-Care to the ICF
- 30 The concepts included in the 65 items of the EASY-Care were linked to 61 ICF categories, 2 from the
- first level, 35 from the second level and 24 from the third level.

Insert table 1 about here

Looking to the Body functions component, it is observed that the EASY-Care present 14 connections to Chapter Mental functions (7.3, 7.5, 7.7, 7.8, 7.9, 7.11, 7.12, 7.13 and the six questions of the cognitive impairment test), 3 connections to Chapter Sensory functions and pain (1.1, 1.2 and 7.6), 1 connection to Chapter Functions of Cardiovascular, haematological, immunological and respiratory systems (6.2), 1 connection to Chapter Functions of digestive, metabolic and endocrine systems (2.13), 1 connection to Chapter Genitourinary and reproductive functions (2.12) and 1 connection to Chapter Skin and related structures functions (2.11). Chapters Voice and speech functions and Neuromusculoskeletal and movement-related functions are not comprised in the EASY-Care. However, the Body structures related to these Body functions are addressed, i.e., Chapter Structures involved in voice and speech (2.8) and Chapter Structures related with the movement (3.2).

Communication (1.3 and 1.4), 6 connections to Chapter Mobility (3.1, 3.3, 3.4, 3.6, 3.8 and 8.3), 16 connections to Chapter Self-care (2.1, 2.2, 2.3, 2.4, 2.7, 2.9, 2.10, 2.14, 6.1, 6.3, 6.4, 6.5, 6.6, 6.7, 8.1 and 8.2), 4 connections to Chapter Domestic life (question 9 from personal information, 2.5, 2.6 and 3.7), 8 connections to Chapter Major life areas (questions 6 and 8 from the personal information, 5.3 and 7.1), and 1 connection to Chapter Community, social and civic life (7.1). There are no connections

1 connection to Chapter Learning and applying knowledge (1.2), 2 connections to Chapter

to Chapters General tasks and demands and Interpersonal interactions and relationships.
 The EASY-Care includes items linked to all chapters of the Environmental factors component: 6

21 connections to Chapter Products and technology (questions 3 and 6 from personal information, 5.1,

22 5.2 and 8.4), 1 connection to Chapter Natural environment and human-made changes to environment

(questions 3 from personal information), 7 connections to Chapter Support and relationships

(questions 10 from personal information and 4.5), 2 connection to Chapter Attitudes (questions 4.3

and 4.4.) and 1 connection to Chapter Services, systems and policies (question 5.4).

There is only one question of the EASY-Care (question 1.2) related with hearing difficulties that was

linked to two different ICF Components, Body functions (b230 Hearing functions) and Activities and

28 participation (d115 Listening).

29 Moreover, some identified concepts (n=12) could not be linked to the ICF. Six concepts - sex, age,

30 current marital status, years of formal education, living arrangements and professional status - were

identified as Personal factors. Item 7.2 (In general, would you say your health is) is a meaningful

- 1 concept referred to quality of life in general, and was assigned *nd-gh* (not defined-general health).
- 2 Falls (3.5), security at home (4.1), security outside (4.2), dead of a relative (7.4) and satisfaction with
- 3 life (7.10) were assigned *nc* (not covered), because they are not contained in the ICF.
- 4 ICF Categories
- 5 The EASY-Care was linked to 61 ICF codes, 16 (26%) from the Body functions component, 3 from the
- 6 Body structures (5%), 30 from the Activities and participation (49%) and 12 from the Environmental
- 7 factors (20%) (table 2).
- 8
 Insert table 2 about here
- 9 Discussion
- 10 This study presented an analysis of the content of the EASY-Care Standard using the ICF as
- 11 reference. Most of the content of the EASY-Care was linked to the ICF, demonstrating good content
- validity. Therefore, despite the well-known advantages of this instrument, particularly that it enables a
- multidimensional health and social assessment of older people and it is a practical tool to be used in
- 14 primary care, this study shows that the results obtained with this instrument can be worldwide
- understood and compared as it is compatible with the standard language of the ICF.
- 16 All ICF components are contained in this instrument, with Body functions and Activities and
- 17 participation components being particularly well covered. Regarding Body functions, Mental functions
- and Sensory functions and pain, which are related to the aging process [21,22], are very well covered
- 19 by the EASY-Care. Voice and speech functions and Neuromusculoskeletal and movement-related
- 20 functions, where muscle power and endurance are included, are not covered. These functions were
- 21 considered relevant to include in the Generic Set [23] and in the ICF Core Set for geriatric patients in
- 22 early post-acute rehabilitation facilities [24]. However, older people may experience voice and
- 23 movement changes due to the aging process of laryngeal and skeletal muscle structures [25,26].
- 24 These Body structures (Chapter Structures involved in voice and speech and Chapter Structures
- 25 related with the movement) are represented in the EASY-Care. Cardiovascular diseases are a major
- 26 cause of mortality and morbidity among older people [27,28]. However, neither the functions nor
- 27 structures of the cardiovascular system are covered by a specific item in the EASY-Care. This
- 28 information is possible to collect in the Medical History section, specifically in the summary of current
- 29 medical conditions. However, the inclusion of items addressing cardiovascular impairments should be
- 30 considered in future modifications of the EASY-Care.

The Activities and participation component is the most represented in the EASY-Care, demonstrating that one of the main concerns of this instrument is to assess the experience of older people in different life domains. The activities related to self-care, major life areas and mobility are the ones most covered. Self-care and mobility are basic activities of daily living that are frequently restricted in older people [29,30]. In the ICF Core Set for geriatric patients in early post-acute rehabilitation facilities these activities were also those most represented in the Activities and participation component [24]. Surprisingly, Chapter Interpersonal Interactions and Relationships, where family and intimate relationships are included, is not addressed by the EASY-Care. Despite family relationships not being covered, the support received from immediate and extended family are possible to assess with this instrument. However, regarding intimate relationships, they are not addressed. Intimate relationships, specifically sexuality, are recognized to be an important factor for older people, affecting identity, sense of self, mental health, social relationships and quality of life [31]. To obtain a more complete picture of the older people level of activity and participation, evaluations performed by the EASY-Care should be supplemented by ICF categories, such as d760 family relationships and d770 intimate relationships. The EASY-Care includes items linked to all chapters of the Environmental factors component, demonstrating that it enables the description of the context in which older people live. Chapters Products and technology and Support and relationships were those most represented, showing that the EASY-Care favours the individual's most immediate environment rather than the general environment [6]. Six concepts were linked to Personal factors (sex, age, current marital status, years of formal education, living arrangements and professional status) and are relevant to consider in the assessment and management of older people. These Personal factors may contribute to the classification of this component in future revisions of the ICF. A meaningful concept referred to quality of life in general was assigned not defined-general health. Quality of life is a broad concept affected by the person's physical health, psychological state, level of independence, social relationships, personal beliefs and their relationship with their environment [32]. Probably due to this complexity, the concept of quality life is not currently integrated in the ICF, however, this should be considered in future revisions of this classification. Other five identified concepts - falls, security at home, security outside, dead of a relative and satisfaction with life - are not covered by any specific ICF category. This highlights a major ICF limitation since it cannot include all individual experiences with the level of

specification required. Nevertheless, regarding falls, as this is considered a worldwide major issue
affecting older people [33], the addition of this concept should be considered.

Disability and Rehabilitation

The list of ICF categories comprised in the EASY-Care provides an overview of what we are currently assessing in older people with this comprehensive assessment instrument. In future, this list of categories, together with categories of other measures, may contribute to develop a comprehensive ICF Core Set to describe functioning of older people.

Study limitations

As linking process was a key methodology of this study, one potential limitation may be related to this qualitative method that may denote some subjectivity. However, the almost perfect agreement between the two health professionals demonstrates the reliability of the linking process. The background of the linkers as well as their ICF training may also have influenced the linking process. It can therefore be hypothesised that other health professionals would have decided differently.

Conclusions

Most of the content of the EASY-Care Standard was linked to the ICF and all five components of the ICF are represented. The integration of the universal language of the ICF in this instrument illustrate the potential use of this instrument in primary care settings at community level. Further research is needed to develop an ICF Core Set to comprehensively address older people needs, resources and trajectories in health and social care. This study also highlighted some limitations of the ICF that may be considered in future revisions of this classification.

Declaration of interest

21 The authors report no declarations of interest.

References

- United Nations. World Population Ageing 2009. New York: United Nations; 2009.
- World Health Organization. Towards age-friendly primary health care. Geneva: World Health
 Organization; 2004.
- Wenger NS, Solomon DH, Roth CP, al. e. The quality of medical care provided to vulnerable community-dwelling older patients. Annals of internal medicine 2003;139(9):740-747.
- Johri M, Beland F, Bergman H. International experiments in integrated care for the elderly: a
 synthesis of the evidence. International journal of geriatic psychiatry 2003;18(3):222-235.

- 1 5. Philip I. Can a medical and social assessment be combined? Journal of the Royal Society of
- 2 Medicine 1996;90:11-13.
- 3 6. World Health Organization. International Classification of Functioning, Disability and Health.
- 4 Geneva: World Health Organization; 2001.
- 5 7. Olde-Rikkert MGM, Long JF, Philp I. Development and evidence base of a new efficient
- 6 assessment instrument for international use by nurses in community settings with older
- people. International Journal of Nursing Studies 2012:1-4 [Epub ahead of print].
- 8 8. Stucki G, Kostanjsek N, Ustun B, Cieza A. ICF-based classification and measurement of
- 9 functioning. European Journal of Physical and Rehabilitation Medicine 2008;44(3):315-328.
- 10 9. Sousa L, Galante H, Figueiredo D. Qualidade de vida e bem-estar dos idosos: um estudo
- 11 exploratório na população portuguesa. Revista de saúde pública 2003;37(3):364-371.
- 12 10. Mahoney F, Barthel D. Functional evaluation: the Barthel Index. Maryland State Medical
- 13 Journal 1965;14:56-61.
- 14 11. Fillenbaum GG, Smyer MA. The development, validity and reliability of the OARS
- 15 multidimensional functional assessment questionnaire. Journal of Gerontology
- 16 1981;36(4):428-434.
- 17 12. Brazier JE HR, Jones NMB, O'Cathain A, Thomas KJ, Usherwood T, Westlake L.,. Validating
- 18 the SF-36 health survey questionnaire: new outcome measure for primary care. British
- 19 Medical Journal 1992;305(6846):160-164.
- 20 13. Katzman R BT, Fuld P, Peck A, Schechter R, Schimmel H., Validation of a short orientation-
- 21 memory-concentration test of cognitive impairment. American Journal of Psychiatry
- 22 1983;140(6):734-739.
- 23 14. D'Ath P KP, Mullan E, Evans S, Katona C., Screening, detection and management of
- 24 depression in elderly primary attenders: the acceptability and performance of the 15 item
- 25 geriatric depression scale (GDS15) and the development of short versions. Family Practice
- 26 1994;11(3):260-266.
- 27 15. Heikkinen E, Waters WE, Brzezinski ZJ. The Elderly in Eleven Countries: A Sociomedical
- 28 Survey. World Health Organization Regional Office for Europe, Public Health in Europe,
- 29 Copenhagen 1983;21.
- 30 16. The EASY-Care Foundation. EASY-Care Standard 2010: Sistema de Avaliação de Pessoas
- 31 Idosas. http://www.easycare.org.uk/images/files/countries 8 1.pdf>.

- 1 17. Cieza A, Brockow T, Ewert T, Amman E, Kollerits B, Chatterji S, Ustun TB, Stucki G. Linking
- 2 health-status measurements to the international classification of functioning, disability and
- 3 health. Journal of Rehabilitation Medicine 2002;34(5):205-210.
- 4 18. Cieza A, Geyh S, Chatterji S, Kostanjsek N, Ustun B, Stucki G. ICF linking rules: an update
- 5 based on lessons learned. Journal of Rehabilitation Medicine 2005;37(4):212-218.
- 6 19. Elliott AC, Woodward WA. Statistical analysis quick reference guidebook: With SPSS
- 7 examples. California: Sage Publications, Inc.; 2007.
- 8 20. Landis JR, Koch GG. The Measurement of Observer Agreement for Categorical Data.
- 9 Biometrics 1977;33(1):159-174.
- 10 21. Burns A, Zaudig M. Mild cognitive impairment in older people. The Lancet
- 11 2002;360(9349):1963-1965.
- 12 22. Jakobsson U, Klevsgård R, Westergren A, Hallberg IR. Old people in pain: A comparative
- study. Journal of Pain and Symptom Management 2003;26(1):625-636.
- 14 23. Cieza A, Geyh S, Chatterji S, Kostanjsek N, Ustun B, Stucki G. Identification of candidate
- 15 categories of the International Classification of Functioning Disability and Health (ICF) for a
- Generic ICF Core Set based on regression modelling. BMC Medical Research Methodology
- 17 2006;6(1):36.
- 18 24. Grill E, Hermes R, Swoboda W, Uzarewicz C, Kostanjsek N, Stucki G. ICF Core Set for
- 19 geriatric patients in early post-acute rehabilitation facilities. Disability and Rehabilitation
- 20 2005;27(7-8):411-7.
- 21 25. Ramig LO, Gray S, Baker K, Corbin-Lewis K, Buder E, Luschei E, Coon H, Smith M. The
- 22 Aging Voice: A Review, Treatment Data and Familial and Genetic Perspectives. Folia
- 23 Phoniatrica et Logopaedica 2001;53(5):252-265.
- 24 26. Nair KS. Aging muscle. The American Journal of Clinical Nutrition 2005;81(5):953-963.
- 25 27. Yazdanyar A, Newman AB. The burden of cardiovascular disease in the elderly: morbidity,
- mortality, and costs. Clinics in geriatric medicine 2009;25(4):563-77, vii.
- 27 28. Cabrera MA, de Andrade SM, Mesas AE. A prospective study of risk factors for cardiovascular
- 28 events among the elderly. Clinical interventions in aging 2012;7:463-8.
- 29 29. Webber SC, Porter MM, Menec VH. Mobility in Older Adults: A Comprehensive Framework.
- 30 The Gerontologist 2010;50(4):443-450.

- 30. Dale B, Söderhamn U, Söderhamn O. Self-care ability among home-dwelling older people in rural areas in southern Norway. Scandinavian Journal of Caring Sciences 2012;26(1):113-122.
- 31. Heath H. Older people in care homes: sexuality and intimate relationships. Nursing older
- 32.
- 33. World Health Organization. WHO global report on falls prevention in older age. Geneva: World



Table 1 - Linking the EASY-Care to the ICF

Table 1 - Linking the EASY-Care to the ICF.					
EASY-Care items	ICF Code	ICF Category			
Personal Information					
1 Sex	pf				
2 Age	pf				
3 Residence area	e1600	Products and technology of: rural land development			
	e1602	and urban land development			
	e2	Natural environment and human-made changes to			
		environment			
4 Current marital status	pf				
5 Years of formal education	pf				
6 In general how do your family finances work out	e1650	Financial assets			
at the end of the month?	d870	Economic self-sufficiency			
7 Living arrangements	pf				
8 Professional status	pf				
	d850	Remunerative employment			
	d855	Non-remunerative employment			
9 Are you a carer for someone?	d660	Assisting others			
10 Does someone provide care for you?	e310	Support and relationships of: Immediate family			
	e315	Extended family			
	e320	Friends			
Seeing, Hearing & Communicating					
1.1 Can you see (with glasses if worn)?	b210	Seeing functions			
1.2 Can you hear (with hearing aid if worn)?	b230	Hearing functions			
	d115	Listening			
1.3 Do you have difficulty in making yourself	d330	Speaking			
understood because of problems with your speech?					
1.4 Can you use the telephone?	d3600	Using telecommunication devices			
Looking after yourself					
2.1 Can you keep up your personal appearance?	d5200	Caring for skin			
	d5202	Caring for hair			
2.2 Can you dress yourself?	d540	Dressing			
2.3 Can you wash your hands and face?	d5100	Washing body parts			
2.4 Can you use the bath or shower?	d5101	Washing whole body			
2.5 Can you do your housework?	d640	Doing housework			
2.6 Can you prepare your own meals?	d630	Preparing meals			
2.7 Can you feed yourself?	d550	Eating			
	d560	Drinking			
2.8 Do you have any problems with your mouth or	s320	Structure of mouth			
teeth?	s3200	Teeth			
2.9 Do you have difficulties in chewing food?	d550	Eating			
2.10 Can you take your own medicine?	d5702	Maintaining one's health			
2.11 Have you had any problems with your skin?	b810	Protective functions of the skin			
, ,,	b820	Repair functions of the skin			
2.12 Do you have accidents with your bladder	b620	Urination functions			
(incontinence of urine)?					
2.13 Do you have accidents with your bowels	b525	Defecation functions			
(incontinence of faeces)?					
2.14 Can you use the toilet (or commode)?	d530	Toileting			
Getting around	4000	10.009			
3.1 Can you move yourself from bed to chair, if	d420	Transferring oneself			
they are next to each other?	d4200	Transferring oneself while sitting			
3.2 Do you have problems with your feet?	s7502	Structure of ankle and foot			
3.3 Can you get around indoors?	d4600	Moving around within the home			
3.4 Can you manage stairs?	d4551	Climbing			
3.5 Have you had any falls in the last twelve	nc	Simplify			
months?	110				
3.6 Can you walk outside?	d450	Walking			
3.7 Can you go shopping?	d450 d6200	· ·			
3.8 Do you have any difficulty in getting to public	d4602	Shopping Moving around outside the home and other buildings			
services?	u+002	working around outside the nome and other buildings			
Your safety 4.1 Do you fool safe incide your home?	no.				
4.1 Do you feel safe inside your home?	nc				
4.2 Do you feel safe outside your home?	nc o4	Attitudos			
4.3 Do you ever feel threatened or harassed by	e4	Attitudes			
anyone?	0.1	Attitudes (discrimination)			
4.4 Do you feel discriminated against for any reason?	e4	Attitudes (discrimination)			
4.5 Is there anyone who would be able to help you	e310	Support and relationships of: Immediate family			
in case of illness or emergency?	e315	Extended family			
	e320	Friends Aggusintances poors colleagues poighbours and			
	e325	Acquaintances, peers, colleagues, neighbours and			
Vous cooperandation and fire		community members			
Your accommodation and finance	0155	Draduate and technological design 1, 2,2			
5.1 In general, are you happy with your	e155	Products and technology of design, building and			
accommodation?		construction of buildings for private use			

accommodation is: 5.3 Are you able to manage your money and d86 financial affairs? d86	
	construction of buildings for private use
tinancial attairs?	
d87	
5.4 Would you like advice about financial e57	70 Social security services, systems and policies
allowances or benefits?	
Staying healthy	
6.1 Do you take regular exercise? d57	
6.2 Do you get out of breath during normal b46	
activities?	respiratory functions
6.3 Do you smoke any tobacco? d57	,
C.4.D	like tobacco)
6.4 Do you think you drink too much alcohol? d57	,
6.5 Has your blood pressure been checked d57	like alcohol) 702 Maintaining one's health (regular physical
recently?	examinations)
6.6 Do you have any concerns about your weight? d57	,
, , , , , , , , , , , , , , , , , , , ,	
6.7 Do you think you are up to date with your d57 vaccinations?	Maintaining one's health (immunizations)
Your mental health and well-being 7.1 Are you able to pursue leisure interests, d92	20 Recreation and leisure
hobbies, work and learning activities which are important to you?	. ,
7.2 In general, would you say your health is: nd-(7.3 Do you feel lonely? b15	
7.3 Do you leef lonely? 7.4 Have you suffered from any recent loss or no	2 Emotional functions
bereavement?	
7.5 Have you had any trouble sleeping in the past b13	34 Sleep functions
month?	- Sieep fullctions
7.6 Have you had bodily pain in the past month? b28	300 Generalized pain
7.7 During the last month, have you often been b15	•
bothered by feeling down, depressed or	Z Emotional functions
hopeless?	
7.8 During the last month, have you often been b13	301 Motivation
bothered by having little interest or pleasure in	o i motivation
doing things?	
7.9 Do you have any concerns about memory loss b14	Memory functions
or forgetfulness?	. Momenty remoderne
Geriatric Depression Scale	
7.10 Are you basically satisfied with your life? nc	
7.11 Do you feel that your life is empty? b15	52 Emotional functions
7.12 Are you afraid that something bad is going to b15	52 Emotional functions
happen to you?	
7.13 Do you feel happy most of the time? b15	52 Emotional functions
Other information concerned with medication	
0.4 Day was and half to require the restriction of 57	702 Maintaining one's health (seeking professional
8.1 Do you need help to regularly get your d57	assistance for medication)
medications?	
	702 Maintaining one's health (following medical and other
medications? 8.2 Do you always take your medications d57 according to your doctor recommendations?	702 Maintaining one's health (following medical and other health advice about medication)
medications? 8.2 Do you always take your medications according to your doctor recommendations? 8.3 Can you take all your medications out of the d44	health advice about medication)
medications? 8.2 Do you always take your medications d57 according to your doctor recommendations? 8.3 Can you take all your medications out of the packaging?	health advice about medication) Fine hand use
medications? 8.2 Do you always take your medications according to your doctor recommendations? 8.3 Can you take all your medications out of the packaging? 8.4 Do you think that some of your medications d57 d44 packaging?	health advice about medication) Fine hand use
medications? 8.2 Do you always take your medications according to your doctor recommendations? 8.3 Can you take all your medications out of the packaging? 8.4 Do you think that some of your medications could be more effective if took in a different way?	health advice about medication) Fine hand use
medications? 8.2 Do you always take your medications according to your doctor recommendations? 8.3 Can you take all your medications out of the packaging? 8.4 Do you think that some of your medications could be more effective if took in a different way? Cognitive impairment test	health advice about medication) Fine hand use Drugs
medications? 8.2 Do you always take your medications according to your doctor recommendations? 8.3 Can you take all your medications out of the packaging? 8.4 Do you think that some of your medications could be more effective if took in a different way? Cognitive impairment test 1 What is the year? b157	health advice about medication) Fine hand use Drugs Orientation to time
medications? 8.2 Do you always take your medications according to your doctor recommendations? 8.3 Can you take all your medications out of the packaging? 8.4 Do you think that some of your medications could be more effective if took in a different way? Cognitive impairment test 1 What is the year? 2 What is the month? b15 d57 d44 packaging? e11 c21 c32 c33 c44 c44 c44 c44 c44 c44	health advice about medication) Fine hand use Drugs Orientation to time Orientation to time
medications? 8.2 Do you always take your medications according to your doctor recommendations? 8.3 Can you take all your medications out of the packaging? 8.4 Do you think that some of your medications could be more effective if took in a different way? Cognitive impairment test 1 What is the year? 2 What is the month? 3 What time is it? b15 d57 d44 packaging? b11	health advice about medication) Fine hand use Drugs Orientation to time Orientation to time Orientation to time Orientation to time
medications? 8.2 Do you always take your medications according to your doctor recommendations? 8.3 Can you take all your medications out of the packaging? 8.4 Do you take all your medications out of the packaging? 8.5 Do you take all your medications out of the packaging? 8.6 Do you take all your medications out of the packaging? 8.7 Do you take all your medications out of the packaging? 8.8 Do you take all your medications out of the packaging? 8.9 Do you take all your medications out of the packaging? 8.1 Do you take all your medications out of the packaging? 8.2 Do you always take your medications out of the packaging? 8.3 Can you take all your medications out of the packaging? 8.4 Do you take all your medications out of the packaging? 8.5 Do you take all your medications out of the packaging? 8.6 Do you take all your medications out of the packaging? 8.7 Do you take all your medications out of the packaging? 8.8 Do you take all your medications out of the packaging? 8.9 Do you take all your medications out of the packaging? 8.9 Do you take all your medications out of the packaging? 8.9 Do you take all your medications out of the packaging? 8.9 Do you take all your medications out of the packaging? 8.9 Do you take all your medications out of the packaging? 8.9 Do you take all your medications out of the packaging? 8.9 Do you take all your medications out of the packaging? 8.9 Do you take all your medications out of the packaging? 8.9 Do you take all your medications out of the packaging? 8.9 Do you take all your medications out of the packaging? 8.9 Do you take all your medications out of the packaging? 8.9 Do you take all your medications out of the packaging? 8.9 Do you take all your medications out of the packaging? 8.9 Do you take all your medications out of the packaging? 8.9 Do you take all your medications out of the packaging? 8.9 Do you take all your medications out of the packaging? 8.9 Do you take all your medications out of the packaging? 8.9 Do you take all your medications out of the packaging?	health advice about medication) Fine hand use Drugs Orientation to time Orientation to time Orientation to time Simple calculation
medications? 8.2 Do you always take your medications according to your doctor recommendations? 8.3 Can you take all your medications out of the packaging? 8.4 Do you think that some of your medications could be more effective if took in a different way? Cognitive impairment test 1 What is the year? 2 What is the month? 3 What time is it? 657 d44 b44 b44 b44 b47 cognitive impairment test b17 b18 b19 b19 b19 b19 b19 b19 b19	health advice about medication) Fine hand use Drugs Orientation to time Orientation to time Orientation to time Simple calculation Simple calculation Simple calculation

pf: personal factor; nc: not covered; nd-gh: not defined-general health.

Table 2 – List of ICF codes comprised in the EASY-Care.				
ICF _.	ICF category			
code				
Body funct				
b1140 b1141	Orientation to time Orientation to place			
b1141	Motivation			
b1301	Sleep functions			
b144	Memory functions			
b1441	Long-term memory			
b152	Emotional functions			
b1720	Simple calculation			
b210	Seeing functions			
b230	Hearing functions			
b2800	Generalized pain			
b460	Sensations associated with cardiovascular and			
hE0E	respiratory functions			
b525 b620	Defecation functions Urination functions			
b810	Protective functions of the skin			
b820	Repair functions of the skin			
Body struc	·			
s320	Structure of mouth			
s3200	Teeth			
s7502	Structure of ankle and foot			
	and participation			
d115	Listening			
d330	Speaking			
d3600	Using telecommunication devices			
d420 d4200	Transferring oneself Transferring oneself while sitting			
d440	Fine hand use			
d450	Walking			
d4551	Climbing			
d4600	Moving around within the home			
d4602	Moving around outside the home and other buildings			
d5100	Washing body parts			
d5101	Washing whole body			
d5200	Caring for skin			
d5202	Caring for hair			
d530	Toileting			
d540	Dressing Fating			
d550 d560	Eating Drinking			
d5701	Managing diet and fitness			
d5702	Maintaining one's health			
d6200	Shopping			
d630	Preparing meals			
d640	Doing housework			
d660	Assisting others			
d850	Remunerative employment			
d855	Non-remunerative employment			
d860	Basic economic transactions			
d865	Complex economic transactions			
d870 d920	Economic self-sufficiency Recreation and leisure			
	ental factors			
e1101	Drugs			
e155	Products and technology of design, building and			
	construction for private use			
e1600	Products and technology of rural land development			
e1602	Products and technology of urban land development			
e1650	Financial assets			
e2	Natural environment and human made changes to			
-210	environment			
e310	Support and relationships of immediate family			
e315	Support and relationships of extended family			
e320 e325	Support and relationships of friends Support and relationships of acquaintances, peers,			
6 020	colleagues, neighbours and community members			
e4	Attitudes			
e570	Social security services, systems and policies			