ORIGINAL RESEARCH

Diagnosis of Frailty after a Comprehensive Geriatric Assessment: Differences between Family Physicians and Geriatricians

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Background: **To compare the outcomes of Comprehensive Geriatric Assessments by family physicians and geriatricians.**

Methods: **An explorative observational study was conducted in six family practices (12 ambulatory family practitioners) and 1 geriatric department (4 hospital-based geriatricians) from a university medical center in Nijmegen (the Netherlands). As participants, we included 587 patients aged 70 years and older and registered in the six family practices. The main outcome measures were the judgment on the following: 1) absence or presence of frailty and 2) the state (good-fair-poor) on 8 underlying domains (physical, medication, cognition, sensory, instrumental activities of daily living scale, mobility, mental, and social) according to family physicians and geriatricians based on a Comprehensive Geriatric Assessment.**

Results: **Family physicians and geriatricians agreed on frailty absence/presence in 76% of cases. Geriatricians considered elderly more often frail than family physicians did (n = 294, 50% vs n = 213, 36%). Disagreement on frailty status was notably found in the patients who had less distinct, either poor or good, health states. Discordant frailty judgments, in which the geriatrician rated a person as frail and the family physicians did not, were related to geriatricians more often rating physical health as impaired. Further, geriatricians' judgments of frailty were more strongly related to impaired scores on the domains cognition, sensory, mobility, and mental compared with family physicians judgments: odds ratios 79.3 versus 9.3, 7.6 versus 2.0, 25.0 versus 3.0, and 18.0 versus 2.2, respectively. Impaired physical health and problematic medication use had equally strong associations with frailty in geriatricians and family physicians: odds ratios of 11.5 versus 10.4 and 2.4 versus 2.5, respectively.**

Conclusions: **Geriatricians more often judge patients as frail compared with family physicians and seem to evaluate the available information differently. With increasing collaboration between primary and secondary care, understanding these differences becomes increasingly relevant. (J Am Board Fam Med 2015;28:240–248.)**

Keywords: **Decision-Making; Frail Elderly; Geriatrics; Physicians, Family**

Family physicians (FPs) are facing an increasing number of frail older persons who are presenting their health problems.[1] Hence, FPs try to find ways to improve care for their frail older patients.[2] Therefore, they are in need of a valid and reliable method, first, for the identification of frail older patients and, second, to perform prob-

This article was externally peer reviewed.

Submitted 3 March 2013; revised 16 November 2014; accepted 1 December 2014.

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Funding: This project was funded by grant 60-61900-98-217 of the Dutch National Care for the Elderly Program, coordinated and sponsored by ZonMw, the Netherlands, organization for health research and development.

Conflict of interest: none declared.

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lem analysis and management of problems identified. One of the commonly used methods for evaluation and management of geriatric patients in hospital care is the Comprehensive Geriatric Assessment (CGA).[3] A CGA determines an older person's medical, psychosocial, functional, and environmental resources and problems and results in an overall care plan. The introduction of CGA in primary care may have beneficial effects because it discloses hidden health problems and treatment needs.[4] However, controversy exists over whether the introduction of CGA will be beneficial and cost-effective in primary care.[5–10] Furthermore, implementation of CGA is hampered by time and financial constraints.[8,11] Therefore, more efficient CGA tools are necessary for family practice, for which we developed a stepwise approach in which a short tool is used as a first step to select the patients who will really benefit from CGA.[1,8,12,13]

In general, CGA by a hospital geriatrician is used as the standard for validating new primary care frailty instruments. CGA is a valid instrument for the management of frail elderly in hospital care[14]; however, applying tools for CGA in other than the traditional hospital setting, probably means that their use, meaning, effectiveness, and output differ. Little is known about the differences between CGA by FPs and hospital geriatricians. These differences may arise at several levels. First, primary care and specialist CGAs differ in their content, methods, and intensity, with usually a more efficient approach being applied in primary care. Second, although geriatricians are specifically trained for treating frail elderly, FPs received generalist training for a broader population. Finally, the perspectives of FP and geriatrician differ, with the FP working in the community with larger, unselected groups of patients with usually lower disease prevalence and the geriatrician working with selected populations, often through referral based on the presence of symptoms and thus higher prior probabilities of disease and different risk profiles.[15] Having both a generalistic and holistic approach to care, FP and geriatrician also have many similarities. On the balance, it is unclear how these differences and similarities influence CGA performance across FPs and hospital geriatricians.

We evaluated the differences and similarities between CGAs by FPs and hospital geriatricians, by comparing primary care CGA coordinated by an FP (FP-CGA) with specialist care CGA coordinated by a geriatrician (G-CGA).

Methods

Study Population and Design

Six FP practices in and around Nijmegen (the Netherlands) assessed their patients of 70 years and older between February 2010 and August 2011. These practices were situated in urban (n = 2), suburban (n = 1), and rural (n = 3) areas; 1159 older patients were assessed and asked to participate in the study. Patients who were too ill to be assessed were excluded. Patients were also excluded if they were under treatment of a geriatrician or if they had undergone a specialist care comprehensive geriatric assessment in the past 3 months because the information of the geriatrician might influence the frailty judgment of the FP. Informed consent was obtained from 587 older patients, and these were included in the study.

The study participants all underwent a FP-CGA by their own primary care team and a G-CGA by a hospital geriatrician and geriatric nurse. The primary care teams consisted of 12 different FPs and 12 different primary care nurses. All FPs were specifically trained as general practitioners in a 3-year training that follows a basic 6-year general medical training to become an MD in the Netherlands. Experience levels differed from some-to-many years of working in FP. After general nursing training, the nurses were trained as either community/district nurses or practice nurses. The G-CGA was performed by 4 hospital geriatricians (2 consultant physicians specialized in geriatric medicine with several years of working as geriatricians who supervised 2 registrars in geriatric medicine) who were assisted by 2 geriatric specialist nurses working in the outpatient clinic of the Radboud University Medical Center. The time between FP-CGA and G-CGA was a maximum of 4 weeks.

Measurements

Comprehensive Geriatric Assessment by an FP

EASY-Care Two-step Older persons Screening (EASY-Care-TOS[13]; Online Appendix Figure 1) is a 2-step method developed for use in primary care. In the first step, the FP uses already available information, including clinical intuition and knowledge from the patient record, to complete a 14-

item checklist (see Online Appendix Document 1). After completion, the FP decides whether the person is frail. This decision is mainly based on clinical reasoning not on a standardized score. If according to the FP, sufficient information is lacking to make the frailty judgment, the case is "unclear," and the patient proceeds to the second step of EASY-Care-TOS. This comprises a home visit of approximately 1 hour by a primary care nurse, who assesses the person's functioning on physical, psychological, and social domains (see Online Appendix Document 1). After discussing the gathered information with the FP, the FP and nurse will judge the functioning of the person on 8 frailty domains (on a 3-point scale: good-fair-poor): 1) physical, 2) medication (number, use of high-risk medications, and adherence), 3) cognition, 4) sensory, 5) (instrumental) activities of daily living ([I]ADL), 6) mobility, 7) mental, and 8) social. Finally, an overall frailty judgment is made for every person.

For study purposes, all study participants underwent the second step of Easycare-TOS, irrespective of the frailty judgment of the first step.

Comprehensive Geriatric Assessment by Geriatrician

The participants underwent a geriatric assessment at the geriatric outpatient clinic of the Radboud University Medical Center. This assessment consisted of an interview and medical examination by a hospital geriatrician and an interview with the geriatric nurse and additional tests for cognition, mental wellbeing, physical functioning, (I)ADL functioning, and mobility (Cumulative Illness Rating Scale for Geriatrics,[16] Mini Mental State Examination,[17] Katz-15 (I)ADL scale,[18] Short Physical Performance Battery,[19] Geriatric Depression Scale,[20,21] and Hospital Anxiety and Depression Scale-A[22]). After this assessment, the geriatrician and geriatric nurse discussed the frailty judgments. They also judged functioning of the patient on the same 8 frailty domains that were used in the FP-CGA and judged the overall frailty status of the patient. They were blinded for the results of the FP-CGA.

Statistics

We determined baseline characteristics of all participants, of the participants who were frail according to the FP, and of the participants who were frail according to the geriatrician.

We used cross tables to compare the frailty judgments (frail vs not frail: for FP the final evaluation after EASY-Care-TOS step 2) and the judgments (good, fair, poor) on the 8 domains between FPs and geriatricians. Next, we determined the proportion of overall agreement between FPs and geriatricians, and calculated Cohen κ. We used the interpretation of κ values of Landis and Koch.[23] To further our understanding of the association between the FP and geriatrician frailty judgments in relation to the FPs' and geriatricians' evaluation of the performance on each of the 8 domains, we regressed the frailty judgments first on the profession of the evaluator (geriatrician vs FP) and second on their domain scores (fair/poor vs good) in a logistic mixed model (PROC GLIMMIX, SAS 9.2; SAS Institute, Cary, NC), taking into account the dependence at the participant level with the addition of a random intercept per participant. Because only few participants were rated as "poor" on the domains, we collapsed categories "fair"' and "poor". In the same manner, we modeled the association between frailty judgments and the number of domains scored as "fair" or "poor" (range, 0–8). We evaluated whether domain scores and the number of domains rated as impaired were differently associated with frailty judgments by the addition of interaction terms between profession and domain scores and the number of domains impaired.

Table 1. Overall frailty judgment: Comprehensive Geriatric Assessment by Family Physicians (FP-CGA) compared with Comprehensive Geriatric Assessment by Geriatricians (G-CGA) in Community-Dwelling Elderly (n = 587)

	G-CGA		
FP-CGA	Frail	Not Frail	Total
Frail	183	30	213
	31%	5%	36%
Not frail	111	263	374
	19%	45%	64%
Total	294	293	587
	50%	50%	100%

Results

Proportion of Overall Agreement on Frailty Judgments

Agreement on the overall frailty judgment was observed in 76% of patients (Cohen κ, 0.52) (Table 1). Patients were more often judged as frail by geriatricians than by FPs. According to the FPs, 213 (36%) patients were frail, against 294 (50%) ac-

cording to the geriatricians. Overall physical and psychosocial functioning of patients who were frail according to the geriatrician was slightly better than functioning of the patients who were frail according to the FP (Table 2).

Agreement in Judgments on the Domains

On average, FPs scored fair or poor in 2.0 ± 2.3 standard deviation (SD) of the 8 domains per patient, compared with 3.1 ± 2.6 SD of the 8 domains per patient by geriatricians (Table 2).

Regarding the judgments on the 8 domains (Table 3), we found moderate agreement between FPs and geriatricians in the domains mobility (κ = 0.58), cognition (κ = 0.53), (I)ADL (κ = 0.49), mental (κ = 0.47), and social (κ = 0.42). The lowest agreement was found for the domains physical (κ = 0.36), medication (κ = 0.17), and sensory (κ = 0.29).

The judgments on the domains of the geriatrician were more often fair or poor compared with the judgments of the FP, except for the domains (I)ADL and social. The difference in judgment was most obvious in the domains physical and medication. Geriatricians considered the domain physical in 209 (36%) patients worse than the FP did. Thus, the geriatrician judged the domain as fair or poor and the FP, as good, or the geriatrician judged poor, and the FP, fair. For the domain medication, 260 (44%) patients were considered worse by the geriatrician compared with the FP.

We found complete lack of agreement (good vs poor) between FPs and geriatricians in 41 of 4695 domain judgments (0.9%). In 5 of these 41 judgments, the FP judged the patient's situation on the domain as poor, whereas the geriatrician judged it as good. In the other 36 judgments, the geriatrician judged the domain as poor, whereas the FP judged it as good. The majority of these (25 of 36) were related to the domain medication.

Characteristics of Participants with Concordant and Discordant Frailty Judgments

We divided our participants in 4 group: 2 concordance groups: frail and not frail according to both the FP and geriatrician (F+G+, and F−G−, respectively) and 2 discordance groups (frail according to the FP, not frail according to the geriatrician [F+, G−] and vice versa [F−, G+)]). Comparison of the characteristics of the participants in the 4 different groups (F−G−, F+G+, F−G+, F+G−) showed that the participants who were not frail according to the FP and geriatrician (F−G−) had the least functional problems on physical, mental, and social domains. The patients who were frail according to the FP and geriatrician (F+G+) had most functional problems. Functioning of the patients in the 2 groups without consensus (F−G+ and F+G−) was in between that of the 2 consensus groups (F−G− and F+G+) (see Online Appendix Table 1 for further details).

Does Discordance in Frailty Judgment Relate to Incongruent Evaluation of Domain Functioning?

In the patients who were frail according to the FP and not frail according to the geriatrician (F+G−, n = 30), the agreement on the domains was relatively high and ranged from 60.0% on the domain medication to 90.0% on the domain (I)ADL, with fair κ values (0.28–0.46); thus, incongruence in the evaluation of domain functioning could not immediately be hypothesized to explain the discordance in frailty judgment. In the other group without agreement, F−G+ (n = 111), we saw low agreement on the domains physical (31.5%, κ = 0.04), medication (43.6%, κ = 0.07), and sensory (49.5%, κ = 0.18) and better agreement on the other 5 domains. This finding suggests that perhaps incongruent judgments of the domains physical, medication, and sensory may play a role in the discordant frailty judgment. Online Appendix Table 2 shows the complete comparison of the judgments on the 8 domains of the 4 different groups (F−G−, F+G+, F−G+, F+G−). Generally, the proportion agreement and κ in domain functioning were better in the concordant than in the discordant groups. In agreement with the observation of a higher proportion of participants being judged frail by the geriatrician, regressing the frailty judgment on the profession of the evaluator in a logistic mixed model showed that the evaluator being a geriatrician (as opposed to being FP) had an odds ratio (OR) [95% CI] of 3.1 [2.2–4.4]. Simultaneously modeling the associations of the scores on the domains with the frailty judgments resulted in the following ORs for fair/poor versus good functioning: physical, 7.5 [4.4–12.9]; medication, 2.2 [1.4–3.4]; cognition, 16.9 [8.0–35.9]; sensory, 3.1 [2.0–4.7]; (I)ADL, 7.2 [2.7–18.9]; mobility, 6.8 [3.9–11.9]; mental, 4.9 [2.9–8.2]; and social, 3.8 [2.0–7.2]. One extra domain rated as impaired had an OR of 4.8 [3.7–6.1].

Table 2. Characteristics of the Total Study Population, Frail according to Comprehensive Geriatric Assessment by Family Physician (FP-CGA) and Frail according to Comprehensive Geriatric Assessment by Geriatricians (G-CGA)

Characteristic	Total (n = 587)	Frail FP-CGA (n = 213)	Frail G-CGA (n = 294)
Age (years) (mean ± SD)	77 ± 5	79 ± 5	77 ± 5
Sex, women (%)	330 (56)	120 (56)	165 (56)
Multimorbidity			
≥2 diseases (%)	396 (68)	191 (90)	253 (86)
Polypharmacy			
≥4 Medications (%)	362 (62)	156 (73)	204 (69)
Disability			
Activities of Daily Living Scale (ADL) disability (≥1 disability on Katz ADL scale) (%)	140 (24)	84 (39)	104 (35)
Instrumental activities of daily living (IADL) disability (≥1 disability on Katz IADL scale) (%)	317 (54)	164 (77)	225 (77)
Cognition			
Mini Mental State Examination (MMSE) ≤24* (%)	63 (11)	50 (23)	58 (20)
Mobility			
Short Physical Performance Battery (SPPB) <9† (%)	163 (28)	113 (53)	138 (47)
Poor hearing (%)	266 (45)	110 (52)	158 (54)
Poor vision (%)	270 (46)	127 (60)	167 (57)
Mental wellbeing			
Depression: Geriatric Depression Scale (GDS)-15 ≥6‡ (%)	46 (8)	35 (17)	44 (15)
Anxiety: Hospital Anxiety and Depression Scale-A ≥7‖ (%)	45 (7)	34 (16)	41 (14)
Social context			
Loneliness			
Sometimes (%)	141 (24)	72 (34)	90 (31)
Often (%)	19 (3)	11 (5)	12 (4)
Nobody to help in case of an emergency (%)	49 (8)	24 (11)	31 (11)
Self-perceived health			
Excellent (%)	29 (5)	2 (1)	7 (2)
Very good (%)	56 (10)	2 (1)	8 (3)
Good (%)	295 (50)	90 (42)	117 (40)
Reasonable (%)	187 (32)	101 (47)	142 (48)
Poor (%)	20 (3)	18 (8)	20 (7)
Quality of life (range, 0–10) (mean ± SD)	7.5 ± 1.0	7.2 ± 1.0	7.2 ± 1.0
Care use			
Days of hospitalization in the past year (mean ± SD)	1.4 ± 5.2	2.4 ± 6.6	2.2 ± 6.6
Hours/week home care (mean ± SD)	1.0 ± 2.1	1.9 ± 2.9	1.6 ± 2.6
Number of professional caregivers			
1–3 (%)	329 (56)	145 (68)	178 (61)
≥4 (%)	47 (8)	31 (15)	39 (13)
Informal care (%)	89 (15)	64 (30)	69 (24)
Frailty Index ¶ (mean ± SD)	0.25 ± 0.11	0.34 ± 0.11	0.32 ± 0.10
Number of domains with fair or poor rating according to family physicians (mean ± SD)	2.0 ± 2.3	3.6 ± 1.9	3.3 ± 2.4
Number of domains with fair or poor rating according to geriatrician (mean ± SD)	3.1 ± 2.6	4.4 ± 1.7	5.0 ± 2.2

*MMSE score of ≤24 is indicative of cognitive problems (range, 0–30).
†SPPB score of <9 is indicative of a high risk for loss of mobility (range, 0–12).
‡GDS-15 score of ≥6 is indicative of depression (range, 0–15).
‖HADS-A score of ≥7 is indicative of anxiety symptoms (range, 0–21).
¶Frailty Index[27] where higher scores are indicative of being frailer (range, 0–1).
SD, standard deviation.

Table 3. Judgments on Eight Frailty Domains, Comprehensive Geriatric Assessment by Family Physicians (FP-CGA; in the columns) Compared with Comprehensive Geriatric Assessment by Geriatricians (G-CGA; in the rows) (n = 587)

Frailty Domain	FP-GCA	C-GCA				% Agreement (κ)
		Good	Fair	Poor	Total	
Physical						62
	Good	264	177	4	445	(0.36)
	Fair	13	86	28	127	
	Poor	0	4	11	15	
	Total	277	267	43	587	
Medication						55
	Good	252	227	25	504	(0.17)
	Fair	7	63	8	78	
	Poor	0	2	2	4	
	Total	259	292	35	586*	
Cognition						83
	Good	437	44	1	482	(0.53)
	Fair	32	42	19	93	
	Poor	0	6	6	12	
	Total	469	92	26	587	
Sensory						62
	Good	260	139	0	399	(0.29)
	Fair	60	100	11	171	
	Poor	2	10	5	17	
	Total	322	249	16	587	
(Instrumental) activities of daily living						84
	Good	446	30	3	479	(0.49)
	Fair	46	44	13	103	
	Poor	0	3	2	5	
	Total	492	77	18	587	
Mobility						78
	Good	357	65	1	423	(0.58)
	Fair	34	88	13	135	
	Poor	0	14	15	29	
	Total	391	167	29	587	
Mental						75
	Good	346	88	2	436	(0.47)
	Fair	37	87	11	135	
	Poor	2	6	8	16	
	Total	385	181	21	587	
Social						82
	Good	434	39	0	473	(0.42)
	Fair	56	45	7	108	
	Poor	1	4	1	6	
	Total	491	88	8	587	

*One missing.

Table 4 shows that if geriatricians rated 1 extra domain as impaired, this was more strongly related to their frailty judgment than in FPs: ORs were 7.7 [5.1–11.5] and 3.8 [2.9–5.0], respectively (*P* value for interaction "profession*1 extra domain rated as impaired" <.001). The strength of the association (ORs) of separate domains with frailty judgment was comparable across FPs and geriatrician for the domains physical, medication, and social, but being rated as fair/poor had strengthened associations

Table 4. Odd Ratios (OR) for the Association of Frailty Domain Scores (Good versus Fair/Poor) and Number of Frailty Domains Rated as Fair/Poor with Judgment of the Absence or Presence of Frailty According to Family Physicians (FP) and Geriatrician

Predictor	FP OR [95%-CI] for judging person as frail	Geriatrician OR [95%-CI] for judging person as frail	*P* Value for Interaction
Domain reported as fair or poor functioning versus reported as good*			
Physical	10.4 [4.4–24.4]	11.5 [4.9–26.8]	.86
Medication	2.5 [1.13–5.6]	2.4 [1.19–4.8]	.93
Cognition	9.3 [3.9–22.0]	79.3 [18.4–341.2]	.005
Sensory	2.0 [1.1–3.6]	7.6 [3.5–16.5]	.007
(Instrumental) activities of daily living	5.9 [2.0–16.8]	Not estimable	.98
Mobility	3.0 [1.5–6.0]	25.0 [8.9–70.3]	<.001
Mental	2.2 [1.1–4.4]	18.0 [7.1–45.9]	<.001
Social	4.1 [1.9–8.7]	3.1 [1.0–9.3]	.67
Increase in number of health domains reported as fair or poor; +1†	3.8 [2.9–5.0]	7.7 [5.1–11.5]	<.001

*Results (OR [95% CI]) taken from a logistic mixed-model regressing profession of evaluator (FP versus geriatrician), all frailty domain scores (fair/poor versus good) simultaneously, and terms for the interaction between domain scores and profession with a random intercept to allow the dependence at participant level.
†Results (OR [95% CI]) taken from a logistic mixed-model regressing profession of evaluator (FP versus geriatrician), the number of frailty domains (0–8) rated as fair/poor and terms for the interaction between the number of impaired domains and profession with a random intercept to allow the dependence at participant level.

with frailty judgment in geriatricians for the domains cognition, sensory, mobility, and mental as indicated by *P* values for interaction. In the 2 models reported in Table 4, the independent effect of profession (geriatrician vs FP) had ORs of 0.09 [0.03–0.29] and 0.13 [0.05–0.36], respectively, suggesting that in participants being evaluated with good performance on frailty domains, there are a higher odds of FPs rating a person as frail than of the geriatrician rating a person as frail.

Discussion

In this report, we described how primary care CGA by FPs compared with a CGA by hospital geriatricians. We found 76% agreement between FPs and geriatricians on the overall frailty judgment. Geriatricians more often considered older patients frail than FPs did (50% vs 36%). In the evaluation of the 8 frailty domains, geriatricians more often scored fair or poor compared with the FP, particularly in the domains physical and medication. Complete discordant domain evaluations (good vs poor) were sparse, but discordant domain evaluation on the domains physical, medication, and sensory seemed to be associated with discordant frailty judgment, particularly in the group where the geriatrician rated a person as frail and the FP did not. Mixed multivariable analyses showed that an increasing number of domains rated as impaired related to an increased odds of being evaluated as frail. Typically strong associations with a positive frailty judgment had evaluations of impairment on the domains physical and cognition, but—perhaps with the exception of social—impairments on all domains were associated with frailty judgment. Geriatricians may rely more strongly on the (number of) domains affected in their frailty judgments than do FPs, specifically with impaired domain scores for cognition, sensory, mobility, and mental. FPs seemed more restrained in translating an impaired score on these domains into a positive frailty evaluation. Combining these observations suggests that discordance in frailty judgment may be driven partly by geriatricians being more liberal in evaluating physical health and medication use of participants as problematic and partly by geriatricians more easily than FPs translating the presence of impaired functioning on other domains into a positive frailty judgment. However, if present, FPs' and geriatricians' evaluations of physical and medication had equally strong associations with frailty judgment. Therefore, this cannot explain the discordant frailty judgments.

Striking is the low agreement between the judgments of FPs and geriatricians on the domains physical and medication. If one assumes that both

FPs and geriatricians had the same information on the physical health and medications of patients, there must be a difference in what the different professionals take into account in the judgments. We expect that the FPs relate the severity of physical health impairment to other information of functioning of the patient in daily life as well. The geriatricians, on the other hand, may be making the judgment on the basis of the absence or presence of disease only. Evidence for a different approach to evaluating the absence and presence of frailty and its related domains by FPs and geriatricians is also provided by the observation that if no domains were rated as problematic, FPs actually seemed more inclined to rate a person as frail than the geriatricians. Although this rating may be counterintuitive at first, it may offer evidence that FPs use "outside" information—not part of the CGA itself and not showing up in impaired domain ratings—when rating a person's frailty. Moreover, the differences found can partly be explained by differences in the care setting and target population. First, the FP's assessment included an in-home assessment by a nurse, whereas the geriatrician's assessment did not. Second, the FP would be likely to have had a longer term understanding of the patient. Third, the FP worked with ambulatory patients and the geriatrician was hospital-based.

In general, both geriatricians and FPs identify frailty in patients as a marker for the patients who have a higher risk of negative outcomes, but the risk profiles of their patient groups as well as the actual risks these patients face are different in different care settings. Geriatricians generally see patients with a higher a priori chance of diseases who receive more stressful interventions (in hospital) such as surgery. Therefore, they may judge patients with a lower threshold for frailty, in order not to miss anyone. FPs, as coordinators of care, have more prior knowledge of total functioning and the context of the patient. This enables them to make a more accurate judgment of functioning of the patient.[24] Hjortdahl[25] found that prior knowledge of the patients plays an important role in the clinical decision-making process of FPs. In addition, being used to working with low-risk populations, they are trained to act and judge with more restraint.

Despite these issues being closely linked to the classic work on the ecology of medical care,[15] we could find few further empiric reports on this subject to substantiate these assumptions. Kvamme et al[26] already showed that knowledge on the differences in decision-making between primary and secondary care is important. They stated that a shared approach seems to be essential for good collaboration and communication. The differences in frailty judgment between FPs and geriatricians found in this report may influence communication and collaboration. Further studies are needed to unravel the differences in (frailty) decision-making between FPs and hospital geriatricians.

This study has some limitations. First, it was performed in a small setting (1 geriatric clinic and 6 FP practices) in the Netherlands, which is a country with a different health care system from, for example, the United States. This may cause generalizability issues. However, the group of participating patients was relatively large. Second, we do not exactly know how FPs and geriatricians made the frailty judgment. How did they weigh the collected information? Did they use information that was not reported? We tried to reveal this information using the quantitative data. However, supplementing qualitative data could have elicited these underlying questions.

In an era in which cross-sector collaboration is ever more important, this is one of a very small number of reports providing some empiric insight into the differences in health care professionals' evaluations of clinical constructs such as risk, function, and disease across different care settings: We call it the same, we implicitly assume we mean the same, but, in fact, we may be speaking about very different things. As an example of this, the relevance of this study into CGA carries beyond geriatric care alone. Because the concept of frailty is increasingly used in both primary care and hospital settings, it is important to realize that these differences in frailty judgment have implications for the communication about frailty between FPs and hospital geriatricians. As is generally accepted for other diagnostic instruments, diagnoses, such as the frailty assessment, have different properties depending on the population and the professionals involved. This 2-stage frailty judgment may be useful and valid in both care settings, but the important question arises whether these differences in frailty judgment are sufficiently taken into account in collaboration between primary and secondary elderly care.

The authors thank Hanny Hordijk, Leny Theunisse, Marlies Hoogsteen, Brechtje Lubberink, and Sarah Robben for their help with the data collection.

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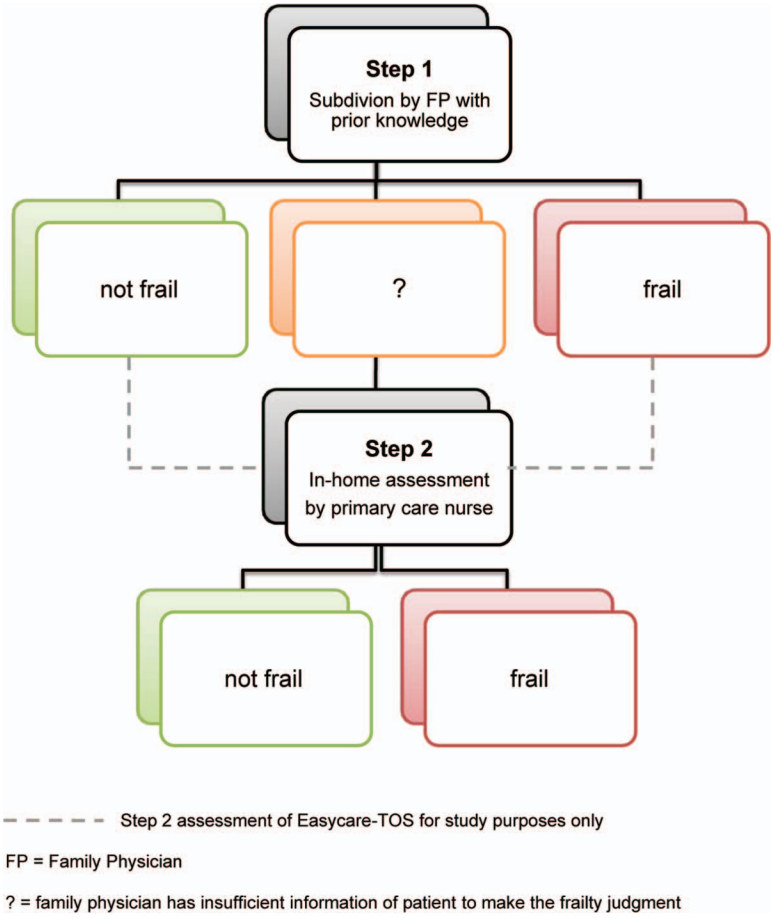
Online Appendix Figure 1. Schematic overview of the EASY-Care-TOS. Step 2, assessment of Easycare-TOS for study purposes only. FP indicates general practitioner/family physician. Question mark indicates that the family physician has insufficient information of the patient to make the frailty judgment.



Online Appendix Table 1. Characteristics of the Study Population Grouped by Divided by Concordance in the Frailty Judgment according to Family Physician and Geriatrician: FP−G−; FP+G+; FP−G+; FP+G−*

Characteristic	FP−G−* n = 263	FP+G+* n = 183	FP−G+* n = 111	FP+G− N = 30
Age (years) (mean ± SD)	74.8 ± 3.8	79.4 ± 5.1	77.3 ± 4.6	76.2 ± 4.3
Sex, female (%)	149 (57)	104 (57)	61 (55)	16 (53)
Multimorbidity				
Diseases (%)	118 (45)	166 (91)	87 (78)	25 (83)
Polypharmacy				
≥4 Medications (%)	133 (51)	131 (72)	73 (66)	25 (83)
Disability				
Activities of daily living (ADL) disability (≥1 disability on Katz ADL scale) (%)	30 (11)	78 (43)	26 (23)	6 (20)
Instrumental activities of daily living (IADL) disability (≥1 disability on Katz IADL scale) (%)	77 (29)	149 (81)	76 (68)	15 (50)
Cognition				
Mini Mental State Examination (MMSE) ≤24† (%)	3 (1)	48 (26)	10 (9)	2 (7)
Mobility				
Short Physical Performance Battery (SPPB) <9‡ (%)	17 (6)	105 (57)	33 (30)	8 (27)
Poor hearing (%)	97 (37)	99 (54)	59 (53)	11 (37)
Poor vision (%)	91 (35)	115 (63)	52 (47)	12 (40)
Mental wellbeing				
Depression: Geriatric Depression Scale (GDS)-15 ≥6‖ (%)	2 (1)	35 (19)	9 (8)	0
Anxiety: Hospital Anxiety and Depression Scale-A (HADS-A) ≥7¶ (%)	2 (1)	32 (18)	9 (8)	2 (7)
Social context				
Loneliness				
Sometimes (%)	43 (16)	64 (35)	26 (23)	8 (27)
Often (%)	7 (3)	11 (6)	1 (1)	0
Nobody to help in case of an emergency (%)	13 (5)	19 (10)	12 (11)	5 (17)
Self-perceived health				
Excellent (%)	21 (8)	1 (1)	6 (5)	1 (3)
Very good (%)	47 (18)	1 (1)	7 (6)	1 (3)
Good (%)	157 (60)	69 (38)	48 (43)	21 (70)
Reasonable (%)	38 (14)	94 (51)	48 (43)	7 (23)
Poor (%)	0	18 (10)	2 (2)	0
Quality of life (range, 0–10) (mean ± SD)	7.8 ± 0.8	7.1 ± 1.1	7.4 ± 0.9	7.6 ± 0.7
Care use				
Days of hospitalization in the past year (mean ± SD)	0.6 ± 3.0	2.5 ± 7.0	1.6 ± 5.9	1.4 ± 3.4
Hours/week home care (mean ± SD)	0.3 (0.8)	2.1 (3.0)	0.9 (1.5)	0.8 (0.16)
Number of caregivers				
1–3 (%)	124 (47)	118 (65)	60 (54)	27 (90)
≥4 (%)	8 (3)	31 (17)	8 (7)	3 (10)
Informal care (%)	17 (6)	61 (33)	8 (7)	3 (10)
Frailty Index** (mean ± SD)	0.18 ± 0.06	0.36 ± 0.10	0.26 ± 0.08	0.24 ± 0.07
Number of domains with fair (1) or poor (2) rating according to FP (mean ± SD)	0.5 ± 0.8	3.8 ± 1.8	1.4 ± 1.1	2.2 ± 1.7
Number of domains with fair (1) or poor (2) rating according to geriatrician (mean ± SD)	1.1 ± 1.0	4.8 ± 1.5	3.5 ± 1.2	2.0 ± 0.9

*Frailty judgment by family physician and geriatrician. "Not frail" is indicated with − and "frail" is indicated with '+'. This results in 2 concordant pairs FP−G−, FP + G+, and 2 discordant pairs FP−G + and FP + G−.
†MMSE score of ≤24 is indicative of cognitive problems (range, 0–30).
‡SPPB score of <9 is indicative of a high risk of loss of mobility (range, 0–12).
‖GDS-15 score of ≥6 is indicative of depression (range, 0–15).
¶HADS-A score of ≥7 is indicative of anxiety symptoms (range, 0–21).
**Frailty Index[27] where higher scores are indicative of being frailer (range, 0–1).
SD, standard deviation.

Online Appendix Table 2. The Judgments on the Eight Domains Divided by Concordance in the Frailty Judgment according to Family Physician and Geriatrician: FP−G−; FP + G+; FP−G+; FP + G−*

	FP−G−*				FP + G+*			
	Geriatrician			Agreement	Geriatrician			Agreement
Frailty domain Family physician	Good(G)	Fair (F)/Poor (P)	Total (T)	% Agreement (κ)	G	F/P	T	% (κ)
Physical				79				69
G	205	55	260	(0.05)	25	30	75	(0.31)
F/P	1	2	3		6	102	108	
Total	206	57	263		31	152	183	
Medication				70				43
G	170	78	248	(0.16)	38	104	142	(0.13)
F/P	2	13	15		1	40	41	
Total	172	91	263		39	144	183	
Cognition				96				80
G	250	3	253	(0.25)	85	22	107	(0.60)
F/P	8	2	10		14	62	76	
Total	258	5	263		99	84	183	
Sensory				70				64
G	161	52	213	(0.20)	46	45	91	(0.28)
F/P	26	24	50		21	71	92	
Total	187	76	263		67	116	183	
(Instrumental) activities of daily				100				67
G	263	0	0	Not computable	60	24	84	(0.34)
F/P	0	0	0		37	62	99	
Total	0	0	0		97	86	183	
Mobility				94				75
G	245	6	251	(0.26)	38	29	67	(0.44)
F	9	3	12		17	99	116	
Total	254	9	263		55	128	183	
Mental				86				74
G	215	24	239	(0.33)	59	28	87	(0.47)
F/P	12	12	24		20	76	96	
Total	227	36	263		79	104	183	
Social				94				70
G	242	5	247	(0.35)	89	18	107	(0.37)
F/P	11	5	16		36	40	76	
Total	253	10	263		125	58	183	

	FP−G+*				FP + G−*			
	Geriatrician			Agreement	Geriatrician			Agreement
Frailty domain Family physician	G	F/P	T	% Agreement (κ)	G	F/P	T	% (κ)
Physical				33				73
G	22	72	94	(0.04)	12	4	16	(0.46)
F/P	2	15	17		4	10	14	
Total	24	87	111		16	14	30	
Medication				44				60
G	36	59	95	(0.07)	8	11	19	(0.28)
F/P	3	12	15		1	10	11	
Total	93	71	110		9	21	30	

Continued

Online Appendix Table 2. Continued

	FP−G+*				FP + G−*			
	Geriatrician			Agreement	Geriatrician			Agreement
Frailty domain Family physician	G	F/P	T	% Agreement (κ)	G	F/P	T	% (κ)
Cognition				78				80
G	80	20	100	(0.26)	22	0	22	(0.32)
F/P	4	7	11		6	2	8	
Total	84	27	111		28	2	30	
Sensory				56				73
G	37	38	75	(0.16)	16	4	20	(0.40)
F/P	11	25	36		4	6	10	
Total	48	63	111		20	10	30	
(Instrumental) activities of daily living				86				90
G	96	9	105	Not computable	27	0	27	Not computable
F/P	6	0	6		3	0	3	
Total	102	9	111		30	0	30	
Mobility				72				73
G	56	27	83	(0.42)	18	4	22	(0.32)
F/P	4	24	28		4	4	8	
Total	60	51	111		22	8	30	
Mental				65				80
G	51	36	87	(0.31)	21	2	23	(0.38)
F/P	3	21	24		4	3	7	
Total	54	57	111		25	5	30	
Social				80				87
G	78	16	94	(0.38)	25	0	25	(0.29)
F/P	6	11	17		4	1	5	
Total	84	27	111		29	1	30	

*Frailty judgment by family physician and geriatrician . "Not frail" is indicated with − and "frail" is indicated with '+'. This results in 2 concordant pairs FP−G−and FP + G+ and 2 discordant pairs FP−G + and FP + G−.

Step 1

Name patient:

Postal code patient:

Date of birth patient:

Assessment date:

GENDER:

- ☐ Male
- ☐ Female

1. **Multimorbidity,** patient has:
   - ❑ 0 or 1 important chronic diseases
   - ❑ 2 important chronic diseases
   - ❑ 3 or more important chronic diseases
   - ❑ unknown
2. **Polypharmacy**, patient has:
   - ❑ less than 4 chronic medications
   - ❑ 4 or more chronic medications
   - ❑ unknown
3. **Cognitive problems**, patient has:
   - ❑ no cognitive problems
   - ❑ mild cognitive problems
   - ❑ dementia (diagnosed)
   - ❑ unknown
4. **Hearing and Vision**, patient has:
   - ❑ no problems with hearing and vision
   - ❑ mild problems with hearing and vision
   - ❑ obvious problems with hearing and vision
   - ❑ unknown
5. **Activities of daily living**, patient is:
   - ❑ not dependent on professional or informal care
   - ❑ to some extent dependent on professional or informal care
   - ❑ highly dependent on professional or informal care
   - ❑ unknown
6. **Mobility**, patient is:
   - ❑ able to move independently
   - ❑ able to move with some help
   - ❑ unable to move
   - ❑ unknown
7. **Falls**, patient has:
   - ❑ not fallen the past 12 months
   - ❑ fallen 1 time in the past 12 months
   - ❑ fallen 2 times or more in the past 12 months
   - ❑ unknown
8. **Informal care**, patient has:
   - ❑ sufficient amount of informal care
   - ❑ insufficient amount of informal care
   - ❑ no informal care
   - ❑ unknown
9. **Loneliness**, patient has:
   - ❑ no loneliness
   - ❑ had complaints of loneliness in the past 12 months
   - ❑ unknown
10. **Social network**, patient has:
   - ❑ sufficient and strong social network
   - ❑ large but weak social network
   - ❑ small but strong social network
   - ❑ small and weak or no social network
   - ❑ unknown

11. **Depressive complaints**, patient has:
    - ❑ no depressive complaints
    - ❑ depressive complaints
    - ❑ unknown
12. **Anxiety complaints**, patient has:
    - ❑ no anxiety complaints
    - ❑ anxiety complaints
    - ❑ unknown
13. **Somatoform complaints**, patient has:
    - ❑ no somatoform complaints
    - ❑ somatoform complaints
    - ❑ unknown
14. **Other psychiatric complaints**, patient has:
    - ❑ no other psychiatric complaints
    - ❑ other psychiatric complaints, namely …….....
    - ❑ unknown

You went through all the domains that may have influence on the frailty status of the patient.

Based on your prior knowledge of the patient, do you think this patient is frail?

- ❑ The patient is not frail
- ❑ The patient is frail
- ❑ The frailty status of the patient is unclear

Step 2

Name patient:

_____

Postal code patient:

Date of birth patient:

Assessment date:

Caregiver present at assessment:

☐ No

☐ Yes Name: _____

Relationship with patient: _____

Age:

GENDER:

- ☐ Male
- ☐ Female

COUNTRY OF BIRTH:

In which country were you born:

- ☐ The Netherlands
- ☐ Another country: ……

In which country was your father born:

- ☐ The Netherlands
- ☐ Another country: ……

In which country was your mother born:

- ☐ The Netherlands
- ☐ Another country: ……

EDUCATION:

What is the highest level of education that you have completed?

- ☐ Fewer than 6 years of primary school
- ☐ 6 years of primary school
- ☐ More than primary school/primary school without further completed education
- ☐ Vocational school
- ☐ Secondary professional education
- ☐ University entrance level
- ☐ University / tertiary education

MARITAL STATUS:

- ☐ Married
- ☐ Divorced
- ☐ Widow / widower / partner deceased
- ☐ Unmarried
- ☐ Long-term cohabitation, unmarried

LIVING SITUATION:

In what kind of accommodation do you live:

- ☐ Single-family dwelling
- ☐ Flat without elevator
- ☐ Upstairs apartment
- ☐ Serviced apartment
- ☐ Detached house
- ☐ Senior apartment
- ☐ Flat with elevator
- ☐ First-floor apartment
- ☐ Sheltered accommodation
- ☐ Care home

You are living:

- ☐ Independent, alone
- ☐ Independent, with others (partner, children, etc)
- ☐ Care home / residential care centre

CARE USE

Have you been admitted to a hospital in the past 12 months?

☐ No
☐ Yes, namely …… days in tot al

Admission 1:

Hospital _____

City _____

Admission 2:

Hospital _____

City _____

Admission 3:

Hospital _____

City _____

Have you visited an out of ours GP service or had a visit from a general practitioner in the evening, night or on the weekend for yourself in the past 12 months?

☐ No
☐ Yes, namely …… times in tot al

Do you receive home care? For example a community nurse, family care or home help.

☐ No
☐ Yes, namely …… hou rs per week

Have you been admitted to a care home or nursing home temporarily in the past 12 months? For example because you were unable to go home immediately after a hospital admission.

☐ No
☐ Yes, namely …… weeks in total

Do you go to a day care centre?

☐ No
☐ Yes, namely …… days per week

Do you go for day treatment?

☐ No
☐ Yes, namely …… days per week

Do you have an informal caregiver?

☐ No
☐ Yes, namely ……..

YOUR HEALTH

How is your health in general?

☐ Excellent
☐ Very good
☐ Good
☐ Reasonable
☐ Poor

How is your health in general, in comparison to one year ago?

☐ Much better
☐ Slightly better
☐ About the same
☐ Slightly worse
☐ Much worse

1. Multimorbidity

1.1. Current medical conditions of the patient

Condition:

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

2. Medication

2.1. Do you use 4 or more different types of medicine?

☐ No
☐ Yes

2.2. Do you take your medicine as prescribed by the doctor?

☐ No
☐ Yes

3. Cognitive problems

3.1. Do you have any concerns about memory loss or forgetfulness?

☐ No
☐ Some
☐ Yes

3.2. Do you have problems with brain functions as memory, attention and thinking?

☐ No problems
☐ Some problems
☐ Severe problems

3.3. Memory test: see appendix 1

4. Mobility and falling

4.1. Can you rise from a chair?
- ☐ Without help
- ☐ With some help
- ☐ Unable to rise from a chair

4.2.Can you move yourself from bed to chair, if they are next to each other?
- ☐ Without help
- ☐ With some help
- ☐ Unable to move from bed to chair

4.3. Do you have problems with your feet?
- ☐ No
- ☐ Yes, namely .....

4.4. Can you get around indoors?
- ☐ Without help (including carrying any walking aid)
- ☐ With some help
- ☐ Confined to bed

4.5. Can you manage stairs?
- ☐ Without help (including carrying any walking aid)
- ☐ With some help
- ☐ Unable to manage stairs

4.6. Have you had any falls in the last 12 months?
- ☐ No
- ☐ One
- ☐ Two or more

4.7. Can you walk outside?
- ☐ Without help (including carrying any walking aid)
- ☐ With some help
- ☐ Unable to walk outside

4.8. Do you need help with travelling?
- ☐ Without help
- ☐ With some help
- ☐ Unable to travel without help

4.9. Observation mobility: see appendix 2

4.10.Chairtest: see appendix 2

5. Looking after yourself

5.1. Can you keep up your personal appearance? (e.g. brush hair, shave, put make-up on, etc.)
- ☐ Without help
- ☐ Need some help

5.2. Can you dress yourself?
- ☐ Without help (including buttons, zips, laces, etc.)
- ☐ With some help (can do half unaided)
- ☐ Unable to dress yourself

5.3. Can you wash your hands and face?
- ☐ Without help
- ☐ Need some help

5.4. Can you use the bath or shower?
- ☐ Without help
- ☐ Need some help

5.5. Can you do your housework?
- ☐ Without help (clean floors etc.)
- ☐ With some help (can do light housework, but need help with heavy work)
- ☐ Unable to do any housework

5.6. Can you prepare your own meal?
- ☐ Without help (plan and cook full meals yourself)
- ☐ With some help (can prepare some things but unable to cook full meals yourself)
- ☐ Unable to prepare meals

5.7. Can you feed yourself?
- ☐ Without help
- ☐ With some help (cutting food up, spreading butter, etc.)
- ☐ Unable to feed yourself

5.8. Can you take your own medicine?
- ☐ Without help (in right doses and at the right time)
- ☐ With some help (if someone prepares it for you or reminds you to take it)
- ☐ Unable to take own medicine

5.9. Can you use the toilet?
- ☐ Without help (can reach toilet, undress sufficiently, clean self and leave)
- ☐ With some help (can do some things, including wiping self)
- ☐ Unable to use the toilet

5.10. Do you have accidents with your bladder (incontinence of urine)?
- ☐ No accidents
- ☐ Occasional accident (less than once a day)
- ☐ Frequent accidents (once a day or more) or need help with urinary catheter

5.11. Do you have accidents with your bowels (incontinence of faeces)?
- ☐ No accidents
- ☐ Occasional accident (less than once a week)
- ☐ Frequent accidents or need to be given an enema

5.12. Do you use incontinence products?
- ☐ No
- ☐ Yes

5.13. Can you go shopping?
- ☐ Without help (taking care of all shopping needs yourself)
- ☐ With some help (need someone to go with you on all shopping trips)
- ☐ Unable to do any shopping

5.14. Do you need help in dealing with finances?
- ☐ No
- ☐ Yes

5.15. Do you have problems with daily activities (for example work, education, household, family and leisure activities)
- ☐ No problems
- ☐ Some problems
- ☐ Unable to perform my daily activities

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6. Seeing, hearing and communicating

6.1. Can you see (with glasses if worn)?
- ☐ Yes
- ☐ With difficulty
- ☐ Cannot see at all

6.2. Can you hear (with hearing aid if worn)?

- ☐ Yes
- ☐ With difficulty
- ☐ Cannot hear at all

6.3. Do you have difficulty in making yourself understood because of problems with your speech?

- ☐ No difficulty
- ☐ Difficulty with some people
- ☐ Considerable difficulty with everybody

6.4. Can you use the telephone?

- ☐ Without help including looking up numbers and dialing
- ☐ With some help
- ☐ Unable to use the telephone

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7. Staying healthy

7.1. Do you take regular exercise?

- ☐ No
- ☐ Yes

7.2. Do you get out of breath during normal activities?

- ☐ No
- ☐ Yes

7.3. Do you smoke any tobacco (e.g. cigarettes, cigars, pipe)?

- ☐ No
- ☐ Yes

7.4. How many glasses of alcohol do you drink per week?

- ☐ Less than 15 glasses per week
- ☐ 15 or more glasses per week, nl……

7.5. Do you have any concerns about your weight?

- ☐ No concerns
- ☐ Yes, being overweight
- ☐ Yes, weight loss

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8. Nourishment

8.1. Do you have any problems with your mouth or teeth?

- ☐ No
- ☐ Yes, namely ……..

8.2. Do you have difficulties with chewing food?

- ☐ No difficulties
- ☐ Some difficulties
- ☐ Unable to chew food

8.3. How is your appetite?

- ☐ Poor
- ☐ Good

8.4. Do you eat enough?

- ☐ No
- ☐ Yes

8.5. Did you lose weight?

- ☐ No
- ☐ Yes

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9. Safety

9.1. Do you feel safe inside your home?
- ☐ No
- ☐ Yes

9.2. Do you feel safe outside your home?
- ☐ No
- ☐ Yes

10. Loneliness / Social network

10.1. Do you live alone?
- ☐ No
- ☐ Yes

10.2. Is there anyone who would be able to help you in case of illness or emergency?
- ☐ No
- ☐ Yes

10.3. Do you have contact with people in your neighborhood?
- ☐ With few people, little contact
- ☐ With few people, but sufficient contact
- ☐ With many people, little contact
- ☐ With enough people sufficient contact

10.4. Do you feel lonely?
- ☐ Never
- ☐ Sometimes
- ☐ Often

11. Psychosocial problems

11.1. Are you able to pursue leisure, interests, hobbies, work and learning activities which are important to you?
- ☐ No
- ☐ Yes

11.2. How often in the past 4 weeks have your physical health or emotional problems hampered your social activities (such as visits to friends or close family members)?
- ☐ Continuously
- ☐ Mostly
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

11.3. Have you suffered from any recent loss or bereavement?
- ☐ No
- ☐ Yes

11.4. Have you had any trouble sleeping in the past month?
- ☐ No
- ☐ Yes

11.5. Have you had bodily pain in the past month?
- ☐ No
- ☐ Yes

If 'yes':
- ☐ Very mild
- ☐ Mild
- ☐ Moderate
- ☐ Severe

11.6. How often in the past month have you been very nervous?

- ☐ Always
- ☐ Very often
- ☐ Quite often
- ☐ Sometimes
- ☐ Almost never
- ☐ Never

11.7. How often in the past month have you felt calm and tranquil?

- ☐ Always
- ☐ Very often
- ☐ Quite often
- ☐ Sometimes
- ☐ Almost never
- ☐ Never

11.8. How often in the past month have you felt despondent and sombre?

- ☐ Always
- ☐ Very often
- ☐ Quite often
- ☐ Sometimes
- ☐ Almost never
- ☐ Never

11.9. During the last month, have you often been bothered by having little interest or pleasure in doing things?

- ☐ No
- ☐ yes

11.10. How often in the past month have you felt happy?

- ☐ Always
- ☐ Very often
- ☐ Quite often
- ☐ Sometimes
- ☐ Almost never
- ☐ Never

11.11. How often in the past month have you felt so somber that nothing could cheer you up?

- ☐ Always
- ☐ Very often
- ☐ Quite often
- ☐ Sometimes
- ☐ Almost never
- ☐ Never

11.12. How is your quality of life in general?

- ☐ Excellent
- ☐ Very good
- ☐ Good
- ☐ Reasonable
- ☐ Poor

11.13. Which report mark (between 0 and 10) would you give your life at this moment?

☐

11.14 How is your quality of life in general, in comparison to one year ago?

- ☐ Much better
- ☐ Slightly better
- ☐ About the same
- ☐ Slightly worse
- ☐ Much worse

13. Additional comments

Appendix 1:

3.3. Memory test (6-CIT):

Score 1 for every wrong answer

a. What year is it? _____ (max 1) x 4 = _____

b. What month is it? _____ (max 1) x 3 = _____

Memory question:

Repeat after me: John Smith, 42 High Street, Bedford

c. About what time is it (within 1 hour)? _____ (max 1) x 3 = _____

d. Count backwards from 20-1 _____ (max 2) x 2 = _____

e. Say the months of the year in reverse _____ (max 2) x 2 = _____

f. Repeat memory question

John _____

Smith _____

42 _____

High _____

Street _____

Bedford _____ _____ (max 5) x 2 = _____

Total = _____

A total score of > 10 is indicative for memory problems

Appendix 2:

4.9. Observation mobility:

☐ Patient is wheelchair-dependent

Does the patient use a walking aid?

☐ Yes

☐ No

Does the patient walk safely?

☐ Yes

☐ No

How would you the falling risk of the patient?

☐ High

☐ Moderate

☐ No

4.10. Rise from a stair without using your arms?

☐ Patient rises quickly

☐ Patient rises with any difficulties

☐ Patient rises from seat, but falls back into the chair

☐ Patient cannot rise

Summary of EASYcare-TOS step 2

Physical functioning	
Medication	
Cognition	
ADL / IADL	
Seeing/hearing	
Mobility / falling	
Mental wellbeing	
Social network	
Loneliness	
Demographic information	
Care use	

14. Complexity of the care context (questions for GP)

14.1. Were other care professionals involved in the care of the patient in the past 12 months? (e.g., medical specialist, physical therapist, home care, social worker, etc.)

- ☐ No other care professionals involved
- ☐ 1-3 other care professionals involved
- ☐ > 3 other care professionals involved
- ☐ unknown

14.2. How do you rate the amount of agreement between the several care professionals involved in the care of the patient, on a rating scale of 1 to 10? (1 is absolutely no agreement and 10 is complete agreement)

1 10

Additional information:

14.3. How certain are you about the treatment of the patient, on a rating scale of 1 to 10? (1 is absolutely uncertain and 10 is completely certain)

1 10

Additional information:

14.4. Did other professionals involved in the care of the patient have doubts about the delivered or required care?

- ☐ No
- ☐ Yes
- ☐ Unclear

Additional information:

14.5. Do you think the patient will benefit from more coordinated and integrated care?

- ☐ No
- ☐ Yes
- ☐ Maybe

Additional information:

Judgment of patient

How do you evaluate the following domains in this patient? Date: ….. ….. / ….. ….. / …….			
Physical functioning	Good	Fair	Poor
Medication*	Good	Fair	Poor
Cognition	Good	Fair	Poor
Vision and hearing	Good	Fair	Poor
ADL/IADL	Good	Fair	Poor
Mobility	Good	Fair	Poor
Mental wellbeing	Good	Fair	Poor
Social context**	Good	Fair	Poor

* this covers: polypharmacy, high-risk medication and adherence

** this covers: safety, environment, social network, social activities

How would you judge the patient?	
	Not frail
	Frail but no complex care context
	Frail and no complex care context