The Efficacy of Educating Nurses on Frailty in Nongeriatric Wards

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Specialty: geriatric medicine.

Date: 9 October 2023 until 12 January 2024 (P2-P3)

Abbreviations

Δ	Mean Difference
CGA	Comprehensive Geriatric Assessment
CI	Confidence Interval
FCCF	Frailty: Core Capabilities Framework
N	Number of patients
SD	Standard Deviation

Summary (wordcount: 249)

BACKGROUND Frailty is an increasingly prevalent condition in hospitalised patients, forcing medical professionals outside of geriatrics to get more familiar with geriatric care. The aim of this study was to evaluate the efficacy of an educational intervention designed for nurses in nongeriatric wards.

METHODS An educational intervention consisting of a video and presentation, and a questionnaire were developed. Participants filled out this questionnaire right before and two to three weeks after the intervention. Both questionnaires were scored as a fraction of the maximum score and quantitively compared in a within subject analysis through paired T-tests.

RESULTS 25 nurses were included in the final analysis. The mean difference (Δ) in scores before and after the educational intervention was 0.02 (95% CI -0.03;0.06). Participants with no previous work experience in geriatrics achieved a higher mean score on the second questionnaire than on the first (0.60 vs. 0.55), Δ=0.05 (95% CI 0.01;0.08). Nurses who did have geriatric work experience showed a decrease in score from 0.58 to 0.55 (Δ=-0.03, 95% CI -0.15;0.08). Scores achieved by nurses on surgical wards increased from 0.56 to 0.62 (Δ=0.06, 95% CI 0.02;0.10). Nurses on internal medicine wards showed a decrease in score with a Δ of -0.04 (95% CI -0.14;0.05) from 0.59 as a mean score on the first questionnaire.

CONCLUSION Nurses who had no previous work experience in geriatrics profited more from the intervention than nurses who did. The intervention was more effective for nurses on surgical wards than for nurses on internal medicine wards.

Introduction (wordcount: 351)

Frailty is considered a biological syndrome consisting of multisystem decreased physiological reserve and increased vulnerability to stressors. Being frail therefore leads to a higher risk of negative health outcomes such as falls, disability and delirium [1–3]. To help recognise frailty, Fried et al [1] defined reference values on five somatic domains. However, not only somatic factors contributing to frailty should be recognised. Psychological, functional, and social factors also play an important part in defining a patient's resilience or frailty [4]. Health care professionals generally struggle to recognise the different aspects of frailty in elderly patients. Geriatric problems are often overlooked, and higher risks of complications remain unidentified [5].

With frailty becoming an increasingly common long-term condition, screening for changes in individual resilience of elderly patients is a necessity. Nurses are in a position to identify (more subtle) signs of frailty) since they spend a substantially larger part of their shift at a patient's bedside than doctors do (13.11% vs. 86.14%, respectively) [6]. With recognition of frailty, nurses are able to start preventative and tailored geriatric care, aiming to minimise complications associated with hospital admission [5]. However, on nongeriatric wards, education on frailty is scarce and inconsistent [7].

In 2018, the National Health Service published *Frailty: Core Capabilities Framework* (FCCF), aiming to 'improve the effectiveness and capability of services for people living with frailty' [8]. The FCCF provides an outline of skills and knowledge needed to manage frailty more effectively. However, it does not provide a standardised educational program designed to train health care professionals. Systematic reviews performed to find such educational programs only bring forward programs focused on patients, their caregivers, and other lay people [7]. There was no program designed to educate health care professionals, specifically nurses, on recognition and management of frailty [9]. This provides an opportunity to create an educational intervention specifically designed for nurses, optimising the use of their proximity to the patient to detect frailty.

The aim of this study is to evaluate the efficacy of an educational intervention for nursing staff in nongeriatric wards on the recognition and management of frailty during hospital admission.

Methods (wordcount: 1202)

Study design

This is a within-subjects prospective cohort study, conducted at Meander Medical Centre in Amersfoort, the Netherlands. All nongeriatric clinical wards were asked to participate. The intervention consisted of a presentation on recognition and management of frailty. To evaluate the efficacy of this intervention, participants were asked to fill out two questionnaires: the first one on the day of the intervention before attending the presentation, the second one two to three weeks after. Only nurses who filled out both questionnaires were included in the final analysis. There were no other inclusion or exclusion criteria of application.

Design of the educational intervention

According to the FCCF, nurses of nongeriatric wards are expected to have knowledge of frailty up to the level of the second tier, being able to recognise frailty and implement basic measures safeguarding a frail patients wellbeing [8]. The educational intervention consisted of a presentation including three different elements of frailty management; (1) to learn what frailty entails and how to recognise it, (2) to acknowledge the risks and complications that come with frailty during hospital admission, and (3) to know a range of measures that can and should be taken to reduce the risk of complications.

All domains included in the FCCF were evaluated up to the second tier and put into a clinically relevant format. Some domains, for instance those on intercultural differences, law, and ethics, were deemed to be beyond the scope of this intervention.

The presentation started with a five-minute educational video on frailty and its integrated domains, showing the effect of illness and medical interventions on a person's resilience. Throughout the video, situations were discussed in which resilience of an individual decreases and increases, showing the consequences of life events, disease, and medical interventions. The video also pointed out ways to detect frailty.

Following this video, the nurses were asked to present a case of a frail patient on their ward. Guided by this case, all five domains of frailty (somatic, psychological, functional, social, and existential) were discussed, focussing on ways to recognise frailty within these domains and relevant questions to ask a patient and/or their families when assessing frailty. Next, risks associated with frailty were applied to the case that was presented. Lastly, these risks were linked to actions in the patient's care plan, aiming to reduce the risk of complications during hospital admission.

An important resource in the development of the educational intervention was the guideline 'Comprehensive Geriatric Assessment (CGA)' [10], which was used to compose an extensive overview of the contents of each domain of frailty, and the risks that come with every aspect of frailty. The actions ideally implemented were also largely based on the CGA guideline, and on local guidelines applicable to frail elderly patients [11–13].

Questionnaire and validation

To be able to assess knowledge on frailty, a questionnaire was built around a case scenario involving a frail elderly patient in the context of the wards that the nurses worked in. These wards were divided into the following categories: surgical wards (including all surgical subspecialties and gynaecology), internal medicine wards (all subspecialties of internal medicine, pulmonology, and cardiology), neurology, and day treatment/short stay wards (haemodialysis and the cardiac care unit).

Participants were asked to name all somatic, psychological, functional, social, and existential factors that could be derived from the case scenario contributing either to frailty or resilience. In addition, they had to give at least five extra questions they would ask the patient to improve the accuracy of their frailty assessment. Lastly, the participants were asked to name the greatest risks regarding frailty during or just after admission for this patient, and which actions they would integrate in the clinical care plan to reduce the risk at these potential complications.

In the first part of the second questionnaire, participants were asked whether they altered the way they cared for a frail elderly patient since attending the presentation on frailty. They were also asked to report if they did further research into frailty after attending the presentation. The second part of the questionnaire consisted of a second case scenario with the same questions as formulated in the first questionnaire.

To validate this questionnaire, nurses on the geriatric ward, specialised geriatric nurses, and geriatricians were asked to answer the questions and to reflect on the face and content validity of the questionnaire. They evaluated the following aspects: clarity of contents (clear and precisely worded questions, easily understandable scope of the question), clarity of wording (appropriate terminology for the target audience), relevance of provided data (questions are relevant and provide necessary data to answer), and number of questions (adequate, not too long). The following questions were asked: "Do you feel like these questions suffice to assess your knowledge on frailty?", "Are all

questions in the questionnaire relevant when assessing knowledge on frailty?", "Is the questionnaire comprehensive, or are there missing questions when assessing knowledge on frailty?", and "Are there ambivalences in the questions or things that are unclear?". Written responses and interviews were used to optimise the questionnaire, mainly improving the phrasing of the questions, and clarifying ambivalences. No major issues were put forward in these interviews. The final questionnaires can be found in appendices A and B.

Data collection

To grade the answers to the questionnaire, an answer model was constructed for each case presented, assigning points to every aspect of frailty or resilience that could be recognised within a case. For every case, there was a maximum number of points to be scored, and individual scores were calculated as a fraction of this maximum score (0-1). With constructing the cases and answer models, it was attempted to keep the maximum score similar for all cases to improve comparability. An example of an answer model and the accessory pointing system can be found in appendix C. The questionnaires were independently scored by two reviewers (LB and LS). Uncertainties and discrepancies were discussed and presented to a geriatrician to reach consensus.

Statistical analysis

All data was processed and analysed using SPSS. For baseline characteristics, descriptive statistical analyses were performed, including mean of each continuous variable (with standard deviation (SD)) and frequency of each categorical variable (with percentages).

The primary outcome was the difference in score on the questionnaires within the same participant before and after being subjected to the educational intervention. A subgroup analysis was performed to see whether there was a difference in scores for participants who had previous work experience in geriatric care and participants who did not. A second comparison was made between scores achieved on different wards (surgery, internal medicine, and neurology). Lastly, several subgroup analyses were performed to compare scores on recognition of each domain of frailty, and on each question of the questionnaire, analysing recognition of frailty, resilience, missing information, associated risks, and necessary actions.

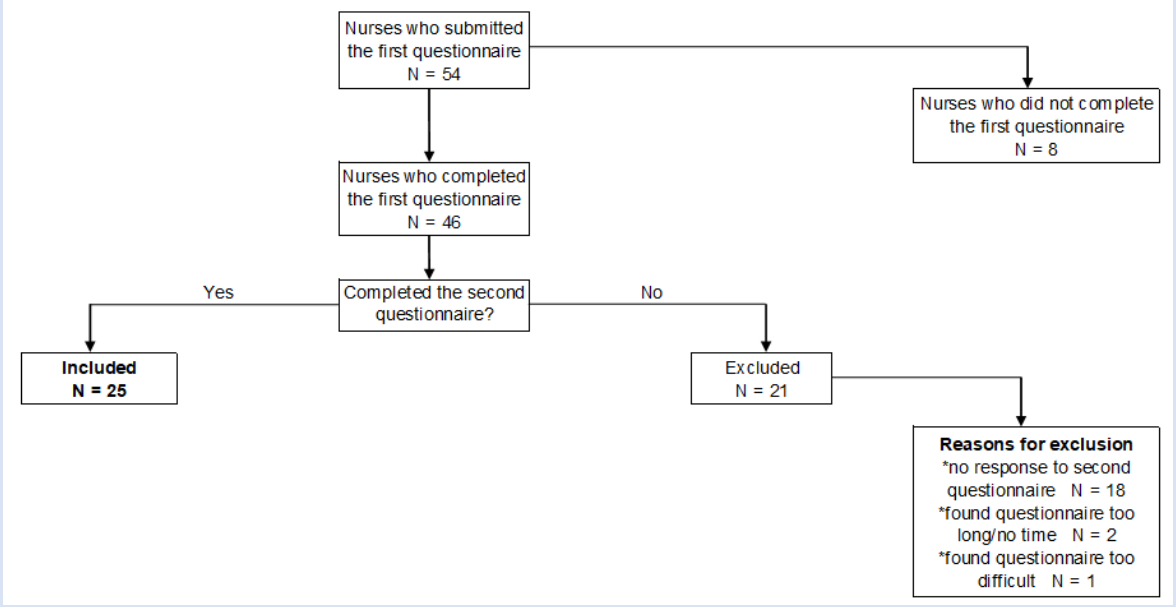

Figure 1 Flowchart of inclusion of study participants.
N = number of participants.

Table 1 Baseline characteristics of study participants.

Characteristics		Value
Age, mean (SD), years		29.6 (7.4)
Sex, N (%) of participants	Male	2 (8.0)
	Female	23 (92.0)
Ward, N (%) of participants	Surgery*	12 (48.0)
	Internal medicine**	10 (40.0)
	Neurology***	3 (12.0)
Job title, N (%) of participants	Nurse	15 (60.0)
	Senior nurse	7 (28.0)
	Nurse in training	1 (4.0)
	Specialised nurse	1 (4.0)
	Specialised nurse in training	1 (4.0)
Education, N (%) of participants	Vocational college	9 (36.0)
	Higher professional education	15 (60.0)
	University education	1 (4.0)
Previous work experience in geriatrics, N (%) of participants	Yes	9 (36.0)
	No	16 (64.0)
Work experience as a nurse, mean (SD), years		6.1 (5.6)

* Surgical wards including orthopedic surgery, general surgery, gastrointestinal surgery, urology, plastic surgery, ear/nose/throat (ENT) surgery, traumatology, gynaecology, vascular surgery and thoracic surgery.
** Internal medicine wards including pulmonology, gastroenterology, rheumatology, general internal medicine, nephrology, vascular medicine, endocrinology, haematology, oncology and cardiology.
*** Neurology solely included the neurological ward.
SD = standard deviation, N = number of participants.

All data gathered to provide these outcomes were compared with paired samples T-tests, analysing the same population before and after the intervention. All outcomes were provided with a 95% confidence interval (CI) to determine statistical significancy. Difference in score was also calculated as a percentual improvement or decline from the score on the first questionnaire. A 20% change in overall score and scores per domain and question was considered clinically relevant.

Results (wordcount: 988)

Participants

The inclusion process of participants is depicted in Figure 1. 46 nurses completed the first questionnaire and attended the presentation on frailty. The response to the second questionnaire was 54.3%, leaving 25 nurses who completed both questionnaires and were therefore included in the final analysis. There was no response to the second questionnaire from nurses on the cardiac care unit and haemodialysis ward, which as a result were excluded from further analysis. Reasons provided for loss to follow-up are described in Figure 1, but for most participants the reason remains unknown. The mean response time between the presentation and filling out the second questionnaire was 21.0 days (range 14-38).

Baseline characteristics of the study participants are summarised in Table 1. Nine participants (36.0%) had had previous work experience in geriatric care, ranging from a six-month internship at a geriatric hospital ward to three years as a nurse on a geriatric trauma unit or at a nursing home.

Efficacy of the educational intervention: improvement within participants

The mean score achieved on the questionnaire before the intervention was 0.56 (SD 0.09) and 0.58 (SD 0.11) afterwards. The mean difference (Δ) in scores before and after the educational intervention was 0.02 (95% CI -0.03;0.06), which is an improvement of 3.6%. The

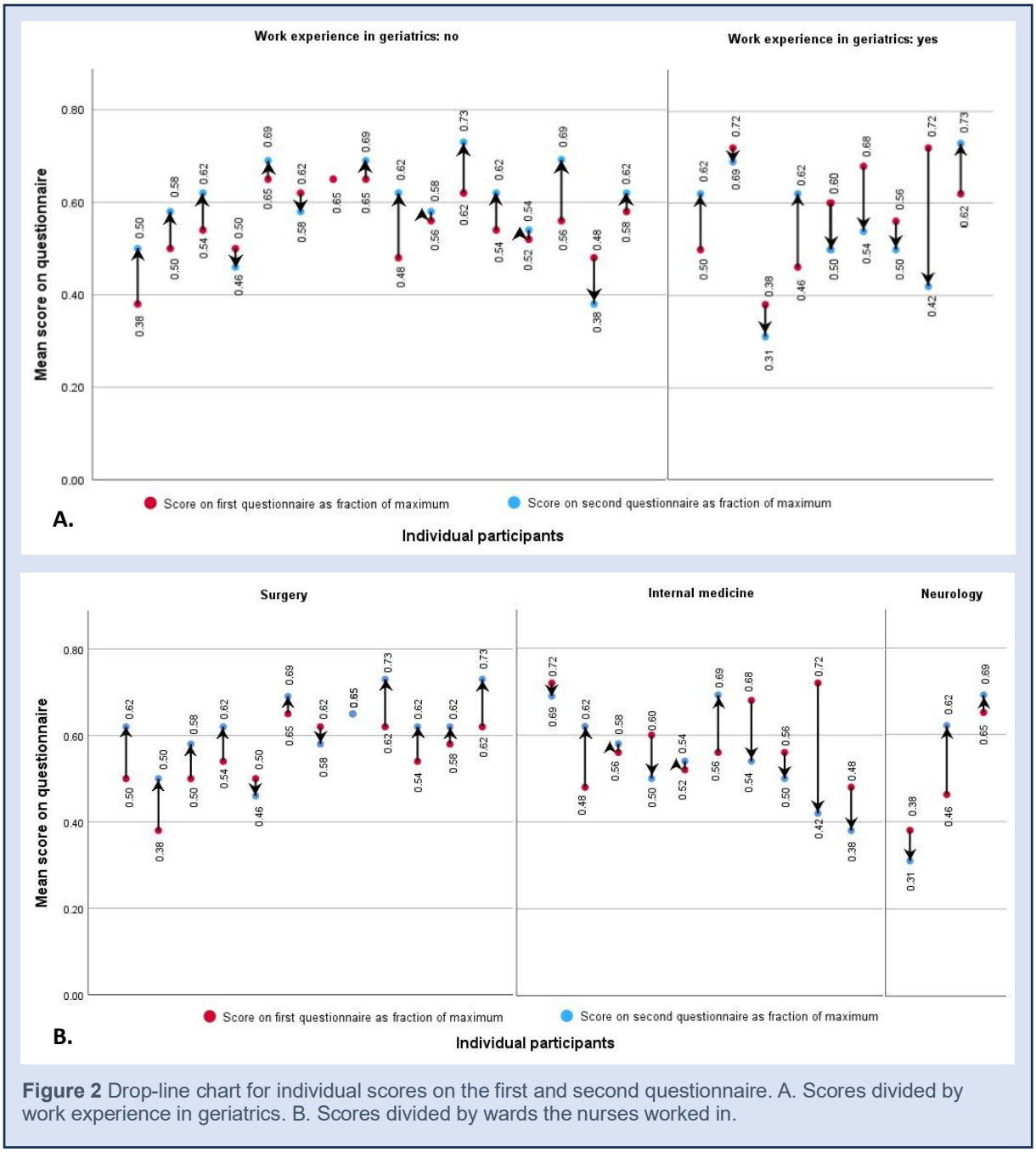

Figure 2 Drop-line chart for individual scores on the first and second questionnaire. A. Scores divided by work experience in geriatrics. B. Scores divided by wards the nurses worked in.

distribution of individual scores achieved by participants is shown in Figure 2. From these drop-line charts, it can be concluded that 15 participants (60.0%) achieved higher scores on the second questionnaire than on the first one. One participant (4.0%) achieved the same score and nine participants (36.0%) showed a decrease in scores. In Figure 2A, a distinction was made between nurses who had and nurses who did not have previous work experience in geriatrics and in Figure 2B nurses were divided by the wards they worked in.

Efficacy of the educational intervention: effects of previous work experience and medical specialties

A subgroup analysis of participants with previous work experience in geriatrics showed a Δ of -0.03 (95% CI -0.15;0.08) in scores achieved on the second questionnaire (0.55) compared to the first one (0.58), which is a decrease of 5.5%. Participants with no previous work experience achieved a higher mean score on the second questionnaire than on the first (0.60 vs. 0.55), with a Δ of 0.05 (95% CI 0.01;0.08), which is an improvement of

9.1%. As can be seen in Figure 2A, of the nine participants who showed a decrease in scores between the first and second questionnaire, six (66.7%) had previous work experience in geriatrics.

A second subgroup analysis showed the effect of the intervention in surgical wards, internal medicine wards, and the neurology ward (Figure 2B). For participants from surgical wards, Δ was 0.06 (95% CI

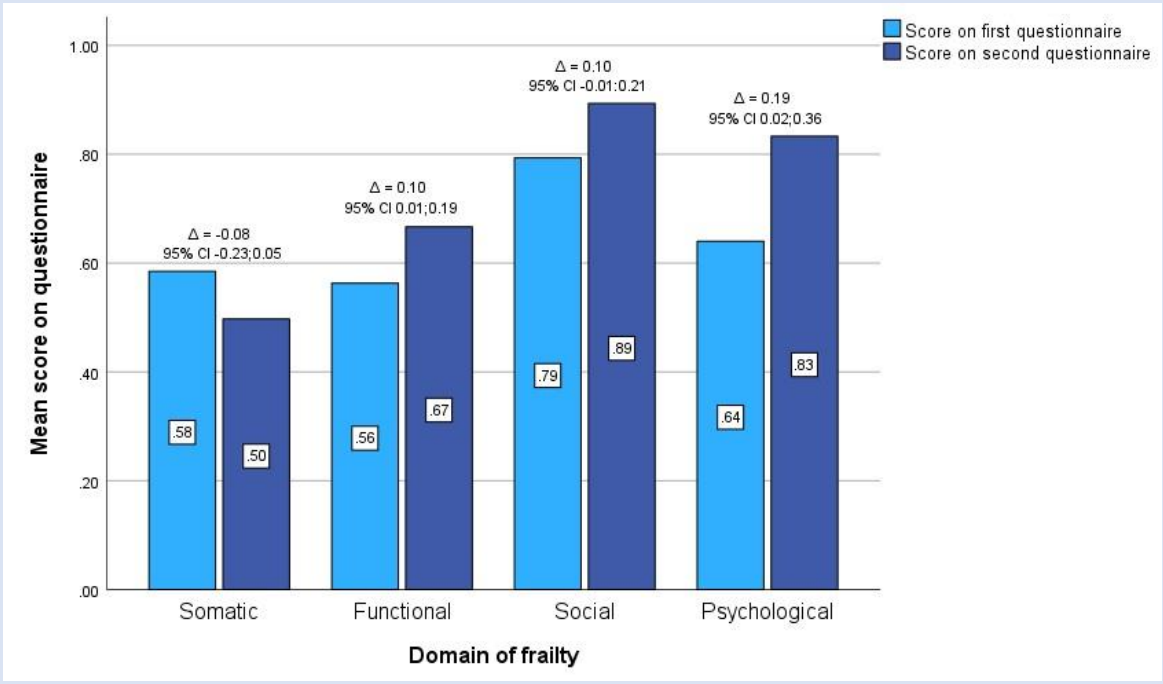

Figure 3 Bar chart as a comparison of mean scores per domain of frailty on the first and second questionnaire.
Δ = mean difference, CI = confidence interval

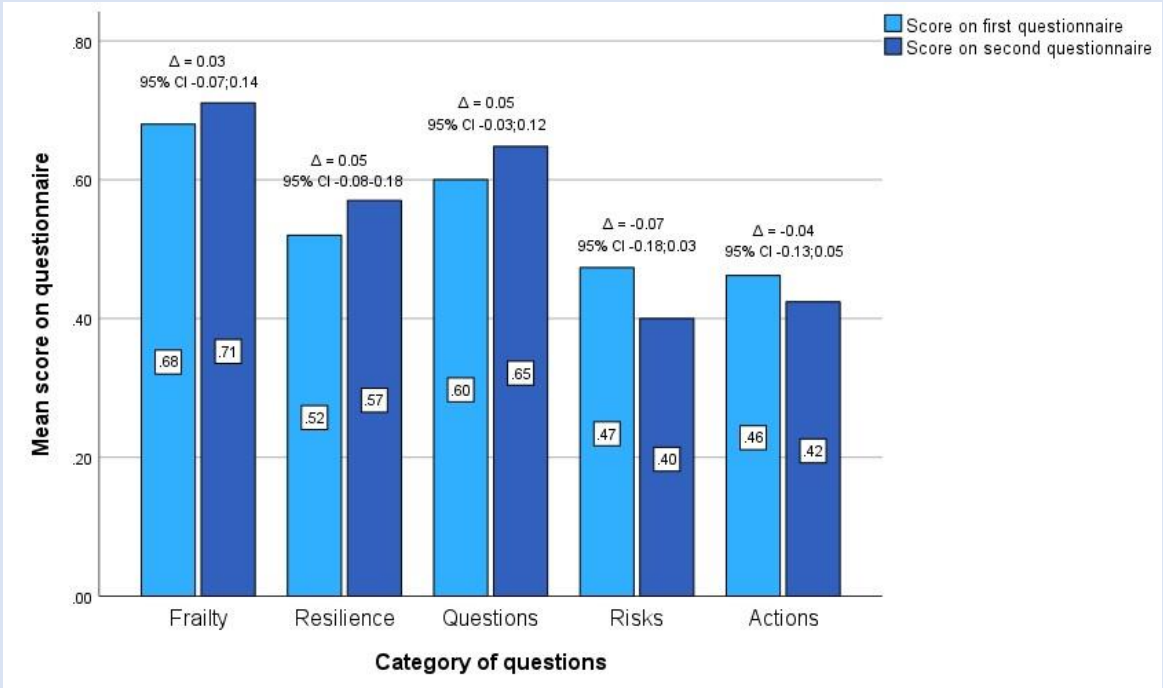

Figure 4 Bar chart as a comparison of mean scores on different questions of the first and second questionnaire.
Δ = mean difference, CI = confidence interval

0.02;0.10) from 0.56 on the first questionnaire to 0.62 on the second one, showing an improvement of 10.7%. Nurses on internal medicine wards showed a decrease in score with a Δ of -0.04 (95% CI -0.14;0.05), which is a 6.7% decrease regarding 0.59 as a mean score on the first questionnaire. Scores achieved by nurses in neurology increased with 8.0% from 0.50 to 0.54 (Δ=0.04, 95% CI -0.24;0.33).

Efficacy of the educational intervention: scores per domain

Figure 3 shows the distribution of scores achieved for every domain of frailty; somatic, psychological, functional, and social. The scores on recognition of existential problems were excluded because they were not present in every case. Participants showed the most improvement in the psychological domain with a Δ of 0.19 (95% CI 0.02;0.36), which is an increase in score of 27.7%. In both the functional and social domain there was an increase in scores of 0.10, with a 95% CI of 0.01;0.19 and -0.01;0.21, respectively. The increase in mean score was 17.5% in the functional domain and 12.7% in the social domain. The highest mean score was achieved in the social domain (0.89), the lowest in the somatic domain (0.49). Participants showed a decrease in score in the somatic domain of -0.09 (95% CI -0.24;0.06), which is -15.5% compared to the mean score on the first questionnaire.

Efficacy of the educational intervention: scores per category on questionnaire

Figure 4 provides the mean scores achieved on different questions on the questionnaire, consistent with the learning goals: (1a) recognition of factors contributing to frailty, (1b) recognition of resilience, (1c) further questions to ask the patient regarding frailty, (2) potential risks during admission or after discharge, and (3) actions and/or preventative measures to be taken.

This subgroup analysis showed improved scores on recognition of both frailty and resilience, with a Δ of 0.03 (95% CI -0.07;0.014) and 0.05 (95% CI -0.08;0.18), respectively. This amounts to an increase of 4.4% and 9.6%. The scores for further questions to be asked on each domain showed an increase of 0.05 (95% CI -0.03;0.12), improving with 8.3% in reference to the first questionnaire. Participants showed a decline of scores on the questions about foreseen risks and actions, with a Δ of -0.07 (95% CI -0.18;0.03) and -0.04 (95% CI -0.13;0.05), respectively. This amounts to a change in score of -14,9% and -6.7%.

Efficacy of the educational intervention: self-reported change

When asked whether they changed their approach to management of frail elderly patients after the intervention, fourteen participants (56.0%) answered that they did. Two participants (8.0%) said they asked more questions on the different domains during a history, and one (4.0%) claimed to have been more aware of the social network surrounding a potentially frail patient. Two participants (8.0%) said that they would have implemented preventative measures sooner but they did not come across a situation yet in which this was necessary. They all said that they were more focussed on recognising signs of frailty and their associated risks. 11 participants (44.0%) claimed they did not change their approach to frailty, with five nurses (20.0%) saying the information provided in the intervention was already familiar to them and six nurses (24%) saying they had not dealt with frailty since attending the presentation.

Discussion (wordcount: 1784)

With this study, the aim was to evaluate the efficacy of a comprehensive educational intervention on frailty, specifically designed for nurses on nongeriatric wards. By evaluating the scores achieved on the questionnaires for all participants, there was no statistically significant nor clinically relevant improvement of knowledge on recognition and management of frailty

found within one month after the intervention.

From the individual scores, it can be concluded that most of the nurses achieved higher scores on the second questionnaire, suggesting increased knowledge of frailty. However, a few nurses achieved a lower scored on the second questionnaire, which would mean that their knowledge on frailty had decreased. Most of these nurses had had previous work experience in geriatrics. This trend might be explained by a phenomenon called cognitive dissonance, which suggests that this intervention might have caused them to have conflicting ideas on frailty and its management when their previous experience did not match the information in the presentation [14]. As a result, they might get confused or less confident of their knowledge on and methods of dealing with these patients, and thus achieve a lower score on the second questionnaire. This subgroup analysis suggests that the intervention is more fit for nurses without clinical geriatric experience, who are less familiar with frailty, since there is a statistical significance in their improvement. However, the improvement is still not deemed clinically relevant.

The subgroup analysis on different specialties (internal medicine, surgery, and neurology) showed an increase in mean score achieved by nurses on surgical wards that was statistically significant but not clinically relevant. Nurses on internal medicine wards showed a decrease in scores that was neither statistically significant nor clinically relevant. The subgroup of nurses on the neurology ward was too small to find meaning in their separate results. However, when comparing the results of the surgical and internal medicine wards, it still showed an interesting trend. During the presentations, it was noted that nurses on surgical wards found more clinical resemblance in the provided information and could link the information to clinical cases more easily. Although nurses on internal medicine wards often claimed to already be familiar with the contents of the presentation, there seemed to be less resemblance to their clinical practice when discussing a case scenario. A possible explanation is the difference in medical interventions that patients are undergoing. A surgical intervention usually takes place during admission and has more direct negative consequences for a (frail) patient, which can be closely monitored by nurses on the wards. Medical interventions outside of surgery are often started in the outpatient clinic, being less subjected to direct observation. When interventions are started during hospital admission, they are generally less invasive than surgical ones, making it harder for nurses to recognise the effects of a certain intervention on a frail patient.

From these results, it appears that the presentation was more in line with the dilemmas that come with frailty in surgical patients than in patients in internal medicine. There appear to be different lacunes in and needs for knowledge on frailty, which calls for an altered presentation adapted to the learning needs of all nurses.

When comparing the scores achieved on each domain of frailty, it showed that there was a statistically significant increase in recognition of factors attributing to either frailty or resilience in the functional and psychological domain. For the functional domain, this improvement did not reach clinical relevance. For the psychological domain, it did. There was a decrease in mean score achieved on the somatic domain, which was not statistically significant nor clinically relevant, but might still suggests that with shifting focus to other domains of frailty, the somatic problems might go increasingly unnoticed.

The subgroup analysis per question on the questionnaire found no statistically significant nor clinically relevant changes in scores per question, but still showed that there was a decrease in scores on recognition of potential risks and actions.

This might be a result of two limitations to the study design. One lies within the presentation as an educational intervention. During the presentation, which had to be held during the day shift on the ward, nurses could be called away by their patients and colleagues. To be included in the study, they had to be present for at least the video, explaining the different domains of frailty and globally addressing associated risks and actions. Unfortunately, despite setting these conditions, this still led to heterogeneity of the intervention, between wards and even between individual nurses on the same ward. This might explain the decrease in scores on the questions regarding risks associated with frailty during hospital admissions and possible actions to be undertaken. These subjects were the last to be addressed in the presentation. Often, at least a few nurses were called away to care for a patient by the time these subjects were reached. Sometimes the presentation was cut short due to circumstances on the ward, but since the nurses did see the educational video and a large part of the presentation, they were still included in the study. As a result, there was insufficient emphasis on the risks and actions, which are most relevant in clinical care. It might therefore be necessary to further improve the presentation to put emphasis on these aspects of knowledge on frailty. However, this does not explain the decrease in scores achieved on these questions. This might be a result of the fact that some participants found the questionnaire too long, which may have caused them to put less effort into these questions, which were the last ones on the questionnaire.

The use of a not previously validated questionnaire as an instrument to measure knowledge on frailty is a limitation to this study. Throughout the process of improving face and content validity, there was no doubt that the questions asked would adequately represent knowledge on frailty of the participant. However, despite all efforts to optimise the questionnaire, there were several issues that were encountered.

Firstly, with very limited time available to gather nurses for the intervention, the first questionnaire needed to be filled out on the ward on the day of the presentation, which not all nurses could manage. Moreover, it was not possible to control the circumstances in which the questionnaires were filled out. By leaving the first questionnaire on the ward on the day of the presentation and by sending the second questionnaire via email, there was no insight in the circumstances in which they were filled out. These could have been either more or less favourable compared to each other, and therefore have led to both improvement and decline of the score on the questionnaire.

Secondly, as stated above, some participants found the questionnaire too long or claimed they did not have time to fill it out, either the first or second time. There was a low response rate to the second questionnaire. This resulted in the possibility of selection bias, potentially only including participants who were more motivated to learn about frailty and cooperate in a study on this subject. This may have led to a more favourable outcome due to higher scores on the questionnaires. However, based on the predefined goals of the educational intervention and the study, all questions asked in the questionnaire were deemed relevant and outweighed the risk of a low response rate and thus selection bias.

As a result, it is unknown if the educational intervention was insufficient to cause a clinically relevant improvement in knowledge on frailty, or if the questionnaire did not suffice to accurately measure changes in knowledge on frailty.

Despite these limitations, one of the strengths of this study lies within the large audience of nurses that was reached within Meander Medical Centre. The intervention took place in thirteen different wards, reaching nurses dealing with frailty

throughout the entire hospital. Another strength is that the educational intervention was systematically constructed according to the FCCF and local guidelines. Throughout the presentations, there was consistently asked for feedback from nurses who attended the presentation, which was used to improve the intervention. This resulted in a comprehensive and clinically relevant presentation, adjusted to this important and substantial group of medical professionals.

More than half of the nurses reported a change in their approach to frail elderly patients and agreed that they became more aware of the risks associated with hospital admission when frail. Nurses who said they did not change their approach mostly claimed that they were already familiar with the information provided in the presentation. Still, more than half of them showed improvement in score on the second questionnaire.

There were fourteen nurses who filled out the first questionnaire but failed to attend the presentation. They were all asked to fill out the second questionnaire to form a control group, aiming to further improve the validity of the results. Of them, seven filled out the second questionnaire, unfortunately leaving the control group too small for valid comparison to the intervention group. However, it still provides useful information on the achievements of the intervention group. The control group achieved a mean score of 0.56 on both the first and second questionnaire (SD 0.07 and 0.11, respectively). With the mean score remaining the exact same in the control group, it is more likely that the increase in mean score within the intervention group suggests that here is an (all be it slight) increase in knowledge on frailty.

In conclusion, with the need for educational interventions on frailty [9] there is also a need for validated ways to evaluate the efficacy of these interventions. Although frailty is a well-defined concept, knowledge on frailty is more elusive and complicated to evaluate. The questionnaire that was used in this study was designed to test knowledge on frailty to validate the educational intervention. Despite its limitations, it can be the foundation of a validated questionnaire. Further validation could be performed by cognitive interviews with the target audience and professionals from all relevant disciplines, evaluating all items with an appropriate number of professionals, according to the COSMIN checklist for content validation. [15]

As for the intervention itself, these results suggest that there is a need for further improvement of this presentation, to shift its focus to the risks of frailty and actions to be undertaken. On top of that, the intervention, including the video, should be altered in a way that it is more applicable to frail elderly patients who are admitted to internal medicine wards. Moreover, there is a need to improve the circumstances in which the presentation was held, trying to gather the entire nursing staff in a team meeting, reducing heterogeneity of the intervention and improving its efficacy.

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Appendix A – first questionnaire (internal medicine/gastroenterology/cardiology)

Vragenlijst kwetsbaarheid – deel 1

Uitleg

Mijn naam is Laura Boots, laatstejaars geneeskundestudent, en onder supervisie van dr. Feikje van Stiphout, internist-ouderengeneeskunde, doe ik onderzoek naar de effectiviteit van voorlichting over kwetsbaarheid bij de oudere patiënt. Hiervoor zal ik twee keer een korte casus aan u voorleggen. Na de eerste casus volgt de voorlichting, waarna enkele weken later de tweede vragenlijst wordt afgenomen. Deze wordt per mail naar u toegestuurd. Hier voor u ligt de eerste casus voor het onderzoek, voorafgaand aan de voorlichting.

Deelname is geheel op vrijwillige basis en de gegevens zullen uiteindelijk anoniem worden verwerkt. Op elk moment kunt u besluiten om niet langer deel te nemen aan het onderzoek.

Persoonlijke informatie

Voor- en achternaam:
Leeftijd:
Geslacht:
E-mailadres:

Afdeling
Afdeling waar u op dit moment werkzaam bent:
Functie:

Opleiding
Opleiding (omcirkel wat van toepassing is): MBO/HBO verpleegkunde
Anders, namelijk…

Werkervaring
Aantal jaren werkervaring als verpleegkundige:
Werkervaring op een geriatrische afdeling (omcirkel wat van toepassing is): ja/nee
Zo ja, hoe lang?

Consent

○ Ik ben voldoende geïnformeerd over en ga akkoord met deelname aan bovenstaand onderzoek. Ik geef toestemming mijn antwoorden hiervoor te gebruiken.

Datum: Handtekening:

Casus

82 jaar. Opgenomen met een hyponatriëmie. Hij heeft last van braken, trillen van de handen en kortademigheid. Patiënt heeft hartfalen na een hartinfarct. De laatste tijd heeft hij steeds meer last van kortademigheid bij inspanning en oedeem aan de enkels, waarvoor de huisarts de furosemide heeft opgehoogd een paar weken vóór de opname.

Medicatie: enalapril 1 keer per dag 20mg, acetylsalicylzuur 1 keer per dag 80mg, metoprolol 1 keer per dag 50mg, furosemide 2 keer per dag 40mg intraveneus.

Tijdens de opname zie je dat hij regelmatig een steekje laat vallen. Hij kan bijvoorbeeld niet goed vertellen hoe hij thuis zijn medicatie inneemt. Hij is nooit eerder verward geweest tijdens een periode van ziekte. Patiënt woont alleen nadat zijn vrouw vorig jaar vrij plotseling is overleden. Zijn kinderen zijn betrokken, maar wonen allemaal minimaal een halfuur bij hem vandaan.

Vragen n.a.v. de casus

Vraag 1
Wat zijn tekenen van kwetsbaarheid die per domein in de casus naar voren komen bij deze patiënt? Zet een streep als u in de casus hierover geen informatie heeft kunnen vinden.

Somatisch (lichamelijk):

Functioneel:

Sociaal:

Psychisch:

Existentieel (waarden/doelen van de patiënt):

Vraag 2
Welke factoren vergroten juist de veerkracht van de patiënt in de casus? Zet een streep als u in de casus hierover geen informatie heeft kunnen vinden.

Somatisch (lichamelijk):

Functioneel:

Sociaal:

Psychisch:

Existentieel (waarden/doelen van de patiënt):

Vraag 3
Welke vragen zou u patiënt (en/of familie) nog meer stellen om de kwetsbaarheid in te schatten? Noem er minimaal vijf.

Vraag 4
Welke risico's voorziet u o.b.v. de informatie in de casus voor deze patiënt tijdens of vlak na de opname ten aanzien van kwetsbaarheid?

Vraag 5
Wat zouden op basis van door u herkende kwetsbaarheden gepaste acties zijn binnen het verpleegplan van deze patiënt?

Vraag 6

Zou u de geriater/geriatrisch verpleegkundige in consult vragen?

- ◯ Ja, want
- ◯ Nee, want

Appendix B – second questionnaire (internal medicine/gastroenterology/cardiology)

Vragenlijst kwetsbaarheid – deel 2

Uitleg

Dit betreft de tweede vragenlijst binnen het onderzoek naar de effectiviteit van voorlichting over kwetsbaarheid bij de oudere patiënt opgenomen in het ziekenhuis. Deze vragen worden 2-3 weken na de voorlichting afgenomen. Om deelname aan het onderzoek te kunnen voltooien, moeten beide vragenlijsten volledig ingevuld zijn.

Deelname is geheel op vrijwillige basis en de gegevens zullen uiteindelijk anoniem worden verwerkt. Op elk moment kunt u besluiten om niet langer deel te nemen aan het onderzoek.

Persoonlijke informatie

Naam:

Naar aanleiding van de vorige vragenlijst

Heeft u zich met behulp van andere bronnen verdiept in het onderwerp 'kwetsbaarheid'? Zo ja, welke?

Kwetsbaarheid op de afdeling

Vraag 1
U heeft uw handelen in het geval van een kwetsbare patiënt aangepast n.a.v. de voorlichting over kwetsbaarheid.

Helemaal oneens		oneens		neutraal		eens		Helemaal eens
○	○	○	○	○	○	○	○	○

Toelichting:

Casus

76 jaar. Opgenomen met een ernstige exacerbatie van haar COPD Gold 3. Zij heeft ook perifeer arterieel vaatlijden, waardoor zij altijd met een stok moet lopen.

Medicatie: acetylsalicylzuur 1 keer per dag 80mg, Ventolin 100 ug/do zo nodig 2 puffs, Spiriva 2.5 ug/do 1 keer per dag 2 puffs, prednison 1 keer per dag 30mg, amoxicilline 3 keer per dag 500mg, CalciChew 500mg/800IE 1 keer per dag 1.

Tijdens de opname blijkt dat patiënte nog altijd rookt. Het lukt haar niet om te stoppen, omdat ze veel stress ervaart i.v.m. een moeilijke familiesituatie. Daarnaast is ze altijd redelijk op zichzelf geweest, ze vindt drukke openbare ruimtes vreselijk. Doordat ze tijdens het lopen steeds om de paar 100 meter moet pauzeren, wil ze eigenlijk helemaal de deur niet meer uit, maar ze kan het nog wel. Met haar huishoudelijke hulp heeft ze een goede band, zij heeft de huisarts gebeld toen patiënte toenemend benauwd werd. Zij doet ook de boodschappen en zorgt ervoor dat patiënte goed eet. Patiënte heeft geen thuiszorg nodig, ADL/iADL is ze voor de rest zelfstandig.

Vragen n.a.v. de casus

Vraag 1
Wat zijn tekenen van kwetsbaarheid die per domein in de casus naar voren komen bij deze patiënt? Zet een streep als u in de casus hierover geen informatie heeft kunnen vinden.

Somatisch (lichamelijk):

Functioneel:

Sociaal:

Psychisch:

Existentieel (waarden/doelen van de patiënt):

Vraag 2
Welke factoren vergroten juist de veerkracht van de patiënt in de casus? Zet een streep als u in de casus hierover geen informatie heeft kunnen vinden.

Somatisch (lichamelijk):

Functioneel:

Sociaal:

Psychisch:

Existentieel (waarden/doelen van de patiënt):

Vraag 3
Welke vragen zou u patiënt (en/of familie) nog meer stellen om de kwetsbaarheid in te schatten? Noem er minimaal vijf.

Vraag 4
Welke risico's voorziet u o.b.v. de informatie in de casus voor deze patiënt tijdens of vlak na de opname ten aanzien van kwetsbaarheid?

Vraag 5
Wat zouden op basis van door u herkende kwetsbaarheden gepaste acties zijn binnen het verpleegplan van deze patiënt?

Vraag 6

Zou u de geriater/geriatrisch verpleegkundige in consult vragen?

- ◯ Ja, want
- ◯ Nee, want

Appendix C – answers and pointing system of the first and second questionnaire (internal medicine/gastroenterology/cardiology)

Patiënt 1: beschouwend (…/26)

76 jaar. Opgenomen met een ernstige exacerbatie van haar COPD Gold 3. Zij heeft ook perifeer arterieel vaatlijden, waardoor zij altijd met een stok moet lopen.

Medicatie: acetylsalicylzuur 1 keer per dag 80mg, Ventolin 100 ug/do zo nodig 2 puffs, Spiriva 2.5 ug/do 1 keer per dag 2 puffs, prednison 1 keer per dag 30mg, amoxicilline 3 keer per dag 500mg, CalciChew 500mg/800IE 1 keer per dag 1.

Tijdens de opname blijkt dat patiënte nog altijd rookt. Het lukt haar niet om te stoppen, omdat ze veel stress ervaart i.v.m. een moeilijke familiesituatie. Daarnaast is ze altijd redelijk op zichzelf geweest, ze vindt drukke openbare ruimtes vreselijk. Doordat ze tijdens het lopen steeds om de paar 100 meter moet pauzeren, wil ze eigenlijk helemaal de deur niet meer uit, maar ze kan het nog wel. Met haar huishoudelijke hulp heeft ze een goede band, zij heeft de huisarts gebeld toen patiënte toenemend benauwd werd. Zij doet ook de boodschappen en zorgt ervoor dat patiënte goed eet. Patiënte heeft geen thuiszorg nodig, ADL/iADL is ze voor de rest zelfstandig.

Antwoord vraag 1 – kwetsbaarheden

Somatisch (…/4): COPD en vaatlijden, roken, polyfarmacie, pijn.

Functioneel (…/2): conditieverlies (moeizame mobilisatie), iADL met enige hulp (boodschappen)

Sociaal (…/2): isolement, weinig/geen sociaal vangnet

Psychisch (…/2): pleinvrees, stress bij moeilijke familiesituatie

Existentieel (…/0): niet bekend

Antwoord vraag 2 – veerkracht

Somatisch (…/1): goede voedingsstatus

Functioneel (…/1): ADL zelfstandig

Sociaal (…/1): contact met HH

Psychisch (…/0): geen bekend

Existentieel (…/0): niet bekend

Antwoord vraag 3 – aanvullende vragen/observaties (…/5, per as 1 vraag = 1 punt)

- Gebruik medicatie
- Valgevaar
- Woonsituatie
- Contact met familie
- Dagbesteding
- Stemming/angst, psychiatrische VG
- Behandelwensen, kwaliteit van leven, zingeving

Antwoord vraag 4 – mogelijke risico's tijdens of vlak na de opname (…/4)

- Risico op psychische ontregeling/delier
- Valrisico
- Risico op (verdere) achteruitgang van functioneren/verminderde zelfredzaamheid (benauwdheid)
- Risico op ontslag niet naar huis

Antwoord vraag 5 – acties in zorgplan (…/4)

- Mobiliseren stimuleren, fysiotherapie voor looptraining
- Begeleiden in stoppen met roken tijdens opname
- Overleg met psycholoog/maatschappelijk werk (stress, familiesituatie, pleinvrees?)
- Oriënterende maatregelen

Consult geriater/geriatrisch verpleegkundige: Ter overweging bij afname conditie en snelle achteruitgang functioneren

Patiënt 2: beschouwend (…/25)

82 jaar. Opgenomen met een hyponatriëmie. Hij heeft last van braken, trillen van de handen en kortademigheid. Patiënt heeft hartfalen na een hartinfarct. De laatste tijd heeft hij steeds meer last van kortademigheid bij inspanning en oedeem aan de enkels, waarvoor de huisarts de furosemide heeft opgehoogd een paar weken vóór de opname.

Medicatie: enalapril 1 keer per dag 20mg, acetylsalicylzuur 1 keer per dag 80mg, metoprolol 1 keer per dag 50mg, furosemide 2 keer per dag 40mg intraveneus.

Tijdens de opname zie je dat hij regelmatig een steekje laat vallen. Hij kan bijvoorbeeld niet goed vertellen hoe hij thuis zijn medicatie inneemt. Hij is nooit eerder verward geweest tijdens een periode van ziekte. Patiënt woont alleen nadat zijn vrouw vorig jaar vrij plotseling is overleden. Zijn kinderen zijn betrokken, maar wonen allemaal minimaal een halfuur bij hem vandaan.

Antwoord vraag 1 – kwetsbaarheden

Somatisch (…/3): klachten bij hartfalen (mogelijke progressie), klachten bij elektrolytstoornis, mogelijke therapieontrouw/onjuist medicatie inname bij polyfarmacie

Functioneel (…/2): afname zelfstandigheid in ADL/iADL (medicatie inname), afname conditie

Sociaal (…/2): familie op afstand, overlijden partner

Psychisch (…/1): verdenking cognitieve stoornis

Existentieel (…/0): niet bekend

Antwoord vraag 2 – veerkracht

Somatisch (…/0): -

Functioneel (…/1): zelfstandig vóór opname

Sociaal (…/1): kinderen betrokken

Psychisch (…/1): geen voorgeschiedenis van een delier

Existentieel (…/0): niet bekend

Antwoord vraag 3 – aanvullende vragen (…/5)

- Eetlust, voedingsstatus
- Visus, gehoor
- Continentie
- Woonsituatie
- Dagbesteding
- ADL/iADL zelfstandigheid
- Mantelzorg/hulp in huishouden/thuiszorg
- Sociaal vangnet in de buurt
- Stemming/angst
- Behandelwensen, kwaliteit van leven, zingeving

Antwoord vraag 4 – mogelijke risico's tijdens of vlak na de opname (…/4)

- Delier risico
- Risico op bijwerkingen van medicatie (valgevaar)
- Risico op functionele achteruitgang/uitplaatsing niet naar huis
- Risico op gewichtsverlies/ondervoeding

Antwoord vraag 5 – acties in zorgplan (…/5)

- Observatie geheugen, ADL, medicatie inname en veilig mobiliseren
- DOSS bijhouden
- Consult fysiotherapie bij conditieverlies
- Inventarisatie thuiszorg/HH
- Observatie intake/vochtlijst, diëtist in consult

Consult geriater: ja, bij verdenking cognitieve stoornis.