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Older adults with frailty and (sub)acute health problems: a descriptive comparison of four different care and cure pathways for aging in place

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Abstract

Purpose Supporting aging in place among community-dwelling older adults with frailty becomes particularly challenging when (sub)acute health problems arise. This study explored outcomes across care pathways that may reduce the need for crisis-driven emergency department (ED) visits or institutional admissions while maintaining quality of life (QoL) and health perception and reducing caregiver burden (EDIZ). Particular attention was given to Subacute Care Pathway (Subacute Zorgstraat, SaZ), an intermediate care model integrating care and cure. Methods A mixed-methods study was performed in 2023, using data from four different care pathways: SaZ, home visits (HV), outpatient emergency geriatric clinic (OEC), and ED visits. Measures included baseline characteristics, interventions, QoL, health perception, EDIZ and place of residence after 9 months assessed by telephone follow-up and hospital records. Results At the nine-month follow-up, 51 of the 85 enrolled patients were still living at home. Particularly high percentages were seen in SaZ and OEC groups, with few acute admissions to the ED and nursing home during this period. These pathways also had good patient-related outcomes and decreased EDIZ. Post-consultation, SaZ provided both medical and supportive care interventions. Conclusion Care pathways may provide appropriate alternative options to ED care for community-dwelling older adults with frailty. Particularly, an intermediate care pathway integrating care and cure appears to be promising when the underlying etiology may require both medical and supportive interventions. Larger comparative studies are needed to determine its effectiveness, impact on caregiver burden, and cost-effectiveness.

Key summary points

Aim

This study explored outcomes across four care pathways, including an integrating care and cure pathway, for community-dwelling older adults with frailty and (sub)acute health problems.

Findings

(Sub)acute care pathways showed promising outcomes for supporting aging in place,

with prevention of emergency department (ED) visits, good patient-reported outcomes and reduced caregiver burden.

Message

Care pathways may provide appropriate alternative options to ED care for community-dwelling older adults with frailty, and particularly an intermediate care pathway integrating care and cure may be valuable when the underlying etiology requires both medical and supportive interventions.

Introduction

Enabling older adults with frailty to age in place is increasingly challenging due to the increasing complexity of their health needs [1, 2]. Informal caregivers are required to manage more complex conditions, resulting in a high risk of caregiver burden [3]. The general practitioner (GP) is primarily responsible for coordinating this care, especially when (sub)acute issues make living at home independently no longer feasible. Determining the exact underlying cause of those issues is often difficult [4, 5]. Good insight into the patient's journey, wishes and individual circumstances, such as the caregiver's burden, is necessary for deciding what to do [6].

Choosing to refer to the readily accessible, high-acuity emergency department (ED) is not always the best choice and it is frequently not the optimal environment for community-dwelling older adults with frailty. Despite efforts made by geriatricians to optimize this care, ED visits are associated with negative clinical outcomes, including a high admission rate and poor patient experiences [7–12]. These visits may potentially be avoided, as many presentations are care-related or involve ambulatory care sensitive conditions (ACSC) [13–14]. Approximately twenty percent of older patients at the ED could be better managed in alternative settings [15]. At the ED in the Maasstad Hospital, a major top-clinical teaching hospital in Rotterdam, presentation rates of older adults exceeded the national average [16, 17]. There is a need for alternatives to the ED.

The GP in the Netherlands can be supported in assessing the patient's current situation in primary care by healthcare assistants and nurses. Furthermore, GPs may consult an elderly care physician (Dutch: specialist ouderengeneeskunde) working primarily in community and long-term care settings, or refer patients to hospital-based specialists, like geriatricians or internists specialized in geriatric medicine. These specialists offer a comprehensive geriatric assessment (CGA) in an outpatient clinic [18]. However, waiting lists are often too long for the sub-acute phase. Most outpatient clinics try to create emergency slots, which are mostly ad hoc. When a (sub)acute problem predominantly concerns a care-related issue rather than a medical diagnostic question, a community-based elderly care physician can perform a home visit (HV) [19]. Care relates to social, supportive, and functional interventions, while cure relates to medical diagnostic and therapeutic interventions. In clinical practice, however, the distinction between predominantly care-related and cure-related problems is often unclear at the time of referral. Integrating both perspectives within a single pathway could therefore facilitate appropriate interventions and potentially reduce the need for crisis-driven ED visits or institutional admissions.

A new initiative based on this principle is Subacute Care Path (Subacute Zorgstraat, SaZ). The SaZ conducts a CGA with an emphasis on social well-being, integrating both care and cure (Fig. 1 and Addendum 1 SaZ protocol). SaZ was launched following the restructuring of a local hospital in central Rotterdam. Previously providing acute geriatric care, this hospital transitioned into an outpatient clinic coupled with a temporary nursing home [20]. This transition provided a unique opportunity to implement a collaborative model for managing (sub)acute problems, involving both geriatricians and elderly care physicians. The model was designed to bridge primary and secondary care by combining expertise from

geriatric medicine and community-based elderly care. Studies have suggested that similar multidisciplinary initiatives strengthened primary care and reduced ED utilization [21–24].

This study hypothesized that three care pathways (the newly developed SaZ, OEC, and HV) enabled community-dwelling older adults with frailty to remain at home without admissions. Furthermore, we assumed participants maintained quality of life (QoL) and health perception, and it would reduce caregiver burden. In this pilot study, we provide descriptive data on the aforementioned three pathways and the ED care pathway, with particular attention in the discussion to the newly developed SaZ, due his integrated care and cure model.

Methods

We performed a prospective observational mixed-methods cohort study (Addendum 2, Research Protocol).

Settings

The main setting was the Maasstad Hospital. This was the setting for the SaZ, OEC and ED care pathways in this study. The Maasstad Hospital is a large teaching hospital located in the southern part of Rotterdam, Netherlands. In this southern part of Rotterdam, the growing elderly population faces challenges due to a high incidence of chronic illness and social issues [17]. The Maasstad Hospital features approximately 600 inpatient beds and around 450,000 outpatient visits annually. From the 37.000 ED visits annually, more than 600 patients receive consultations from geriatricians. However, a large number of frail, community-dwelling older adults are referred to other medical specialties without the involvement of a geriatric team. The elderly care physicians in this study were affiliated with Aafje, a provider of home-based care and consultations in Rotterdam. The physicians who were members of the SaZ team also performed the home visits.

The target population consisted of community-dwelling older adults with frailty who presented to the GP with (sub)acute health issues and were referred to a geriatrician at Maasstad Hospital or an elderly care physician from Aafje. Patients aged ≥ 65 years were classified as frail when demonstrating vulnerability across multiple domains: somatic, psychological, functional, social and existential.

The four care pathways

Subacute Care Pathway (SaZ)

The patients of SaZ were offered a CGA performed by a multidisciplinary team in the outpatient geriatric clinic of the Maasstad Hospital (Addendum 1, SaZ protocol). This team included an elderly care physician, a nurse specialized in geriatrics, a social worker and a geriatrician who had an advisory role in

the post-consultation multidisciplinary case discussion. During this multidisciplinary discussion, an individualized treatment plan was developed, integrating social, supportive, and functional interventions with medical diagnostic and therapeutic interventions. This plan was explained to the patient and caregiver by the elder care physician at the end of the consultation. On the same day, the GP was informed by telephone to ensure immediate and clear task distribution.

In the Maasstad Hospital, the SaZ was introduced in 2022 after the shutdown of a local ED in central Rotterdam where the SaZ had a promising start [20]. The SaZ was promoted to GPs through oral presentations, flyers, and webinars, with the help of a non-governmental cross-domain regional cooperation, “Samen voor Kwetsbare Ouderen 010” (SVKO-010). This collaboration comprised a diverse range of stakeholders, such as long-term care managers and general practitioners. Referrals were accepted by either a geriatrician or an elderly care physician, with telephone contact as the preferred method. Consultation was scheduled within one week. These specialists also redirected referrals to the SaZ when appropriate. Selection for SaZ was guided by two questions: 1. Is the patient at risk of hospital or nursing home admission in the near future? 2. Is the etiology uncertain, with a preference for a conservative approach to prevent admission?

Outpatient Emergency Geriatric Clinic (OEC)

The second pathway of the study, the OEC, offered a CGA with a focus on cure and with less attention to care. The Maasstad Hospital has a geriatric outpatient clinic with two to four spots each week available for sub-acute problems. Referrals were by telephone. GPs required consultative advice for somatic problems that cannot await standard outpatient appointments, but are insufficiently acute for ED referral. In contrast to a standard outpatient geriatric clinic, there was no separate hetero-anamnesis of the caregiver in the OEC. The nurse took blood tests, vital signs, orthostatic blood pressure testing, and performed an ECG. Only a short social and functional anamnesis was taken by this nurse. A memory test was not routinely performed. There was no multidisciplinary case discussion for the treatment plan: the geriatrician decided what was needed, such as additional diagnostic investigations or admission to the clinical ward. When the problem was not cure-related, the patient was sent back to primary care and/or had a follow-up at the standard outpatient geriatric clinic.

Home Visit (HV)

In the third pathway, patients received HV from a community-based elderly care physician without a multidisciplinary team operating from a healthcare institution. Following the reduction of nursing home beds around 2016, elderly care physicians increasingly shifted from institutional to outpatient care [19]. GPs referred patients for cognitive assessment and the mapping of care needs. For (sub)acute problems, the HV could be scheduled within a few days. The physician performed a brief geriatric assessment (GA, a shortened version of the comprehensive geriatric assessment [25]), with a focus on the social and functional domains, as well as cognitive problems and reduced emphasis on physical

examinations and laboratory testing. They offered tailored advice and established a care plan, which could include deploying additional paramedical professionals or home care services within their network.

Emergency Department (ED)

In the final pathway, the patients were presented to the ED for a geriatrician-led assessment. Most referrals were made by telephone, though some occurred without prior notification via ambulance transfer. For geriatric patients, the ED team consisted of an ED nurse and a junior physician, supervised by a geriatrician. This setting was for (ruling out) somatic (cure-related) problems. Patients without an indication for hospital admission were discharged to primary care whenever clinically appropriate.

Inclusion and exclusion criteria

Patients from the different care pathways were matched to ensure comparability. For every patient enrolled in the SaZ, a patient from each of the three other groups within the same week was selected as closely as possible to the SaZ criteria using the two selection questions. For the ED cohort, inclusion was determined by consensus during retrospective reviews by multiple geriatricians (for details Addendum 2, Research Protocol; and see also Figure 2).

Patients were excluded from the study if they were unable to speak Dutch, verbal informed consent could not be obtained, or if they had a terminal illness with a life expectancy of less than three months. The Institutional Review Board approved the study protocol (W22.190) and waived the requirement for written informed consent; instead, verbal informed consent obtained from participants upon discharge was deemed satisfactory. The only deviations from standard clinical practice were follow-up telephone calls and the use of anonymized data.

Data collection and analysis

Although initially planned for a twelve-month duration starting in September 2023, the study was terminated prematurely due to financial constraints. Consequently, recruitment ceased after seven months, with follow-up data collected over 9 months, until June 2024. During the initial consultation utilizing the standardized CGA in the Electronic Patient Record (EPR), baseline data were collected. These data included patient characteristics such as age, co-morbidities, the clinical dementia rating (CDR®, [26]), clinical frailty scale (CFS, [27]) scores, QoL and health perception (derived from patient reported outcome measures (PROMS) questionnaires), and self-perceived pressure from informal care (EDIZ, [28]). The interventions, such as diagnostic tests, directly after consultation were also documented (see Table 2 for details).

The CDR is a staging tool based on clinician judgment categorizing dementia severity (0 = normal, 0.5 = very mild, 1 = mild, 2 = moderate, 3 = severe). The CFS is a nine-point scale based on clinical evaluation of mobility, energy, physical activity and function. Scores range from 1 (very fit) to 9 (terminally/very ill), with higher scores indicating greater frailty; a score of five or higher is designated as “vulnerable.” This score was calculated by the physician at the multidisciplinary team meeting [26]. For measurement of PROMs, we used the TOPICS-SF, which has been specifically developed for geriatric patients and incorporated items from the European quality - 5D (EQ-5D). For this study, the QoL and the health perception scores from the TOPICS-SF were analyzed. These range from 0 to 10, with higher scores representing better patient outcomes [27]. If the patient was unable to respond, the caregiver completed the form, either with the patient or by proxy, reflecting the patient's perspective. The EDIZ is a validated caregiver burden 9-item scale, with higher scores for more strain. It is designed for caregivers of persons living with dementia, but is also used in a general CGA, for measuring the weight of the burden and the effect of an intervention on this weight [28].

Three baseline outcome measures were repeated at follow-up by phone or during hospital appointments: QoL and health perception at three and six months, EDIZ at six months, and place of residence with ED/nursing home admissions after nine months (see Figure 2).

The data were collected using Castor Electronic Data Capture (EDC), ensuring compliance with Good Clinical Practice (GCP) guidelines, including an audit trail within the software. Statistical analyses were conducted in SPSS (version 18.2.1, [29]) and R (version 4.4.1, [30]), using descriptive statistics (medians with ranges and means with standard deviations).

Results

As is shown in Figure 2, a total of 85 patients were enrolled over seven months. The target sample size was not achieved due to the SaZ's premature closure for financial reasons. Follow-up data were available for 60 patients at three months and 22 patients at six months. After nine months, the place of residence was tracked for every included patient.

Baseline data

Patient characteristics are shown in Table 1. The mean age across the cohort was 83 years (range 66–98). The ED and HV groups included patients with higher CFS scores. Fewer informal caregivers were involved in the HV group (56%) than in the other groups (mean 77%).

	SaZ	OEC	ED	HV
Total included patients, n	24	26	26	9
Age years	83 (± 7.6)	79 (± 6.3)	84 (± 6.7)	83 (± 9.5)
Women, n (%)	15 (63%)	16 (62%)	13 (50%)	6 (67%)
CFS average (SD)	5.8 (±0.9)	5.5 (± 1.1)	6.0 (±0.9)	6.3 (±0.7)
CFS ≥ 6, n (%)	16 (67%)	11 (42%)	19 (72%)	8 (89%)
CDR > 0.5, n (%)	14 (58%)	11 (42%)	13 (50%)	6 (67%)
CDR= 0.5, n (%)	5 (21%)	9 (35%)	9 (35%)	2 (25%)
ED visit in the past 3 months,n (%)	9 (38%)	9 (35%)	11 (42%)	2 (25%)
Home care involved, n (%)	13 (54%)	12 (46%)	14 (54%)	5 (56%)
Informal care involved, n (%)	18 (75%)	20(77%)	20 (77%)	5 (56%)
Quality of Life (median, min-max)	7 (2-9)	6 (1-10)	7 (1-9)	5.75 (2-9)
Health perception (median, min-max)	6 (0-9)	6 (1-9)	6.25 (1-9)	5.5 (4-8)
EDIZ (median, min-max)	6 (0-9)	6.5 (0-9)	6.5 (0-9)	8 (3-9)

Table 1. Baseline data from comprehensive geriatric assessment. SaZ= Subacute Care Path; OEC= outpatient emergency geriatric clinic; ED= emergency department; HV= subacute home visit; CFS= clinical frailty scale; SD= standard deviation; CDR= clinical dementia rating; EDIZ=self-perceived pressure from informal care.

Primary Outcomes

Table 2 shows the interventions directly after the consultation. In the HV group, no hospitalizations or diagnostic investigations occurred; the focus on care planning was high. Most patients in this group received home care or paramedic services following the consultation, and 3 of the 9 patients were admitted to a nursing home (33% admission rate) soon after the visit. In contrast, OEC and the ED showed higher hospital admission rates: 19% (5/26) and 58% (15/26), respectively. Additional investigations were performed most often in OEC (77%, 20/26) and ED (92%, 24 /26). Follow-up via outpatient clinic appointments was only given in the OEC care pathway. The SaZ approach provided the most intermediary interventions, at the intersection of welfare (care) and diagnostic (cure), with a preference for a more conservative policy regarding hospital utilization.

	SaZ	OEC	ED	HV
Total included patients, n	24	26	26	9
Intervention n (%)				
Admission hospital	2 (8%)	5 (19%)	15 (58%)	0
Admission nursing home	5 (21%)	4 (15%)	5 (19%)	3 (33%)
FU outclinic	4 (7%)	15 (58%)	0	0
FU Home visit	1 (4%)	0	0	0
Care plan	7 (29%)	1 (4%)	2 (8%)	8 (89%)
Home care	9 (38%)	2 (8%)	0	5 (56%)
Paramedics	8 (33%)	5 (19%)	0	4 (44%)
Welfare	16 (67%)	8 (31%)	1 (4%)	5 (56%)
Advice/ brochures	10 (42%)	12 (46%)	1 (4%)	0
Change in medication	18 (75%)	13 (50%)	1 (4%)	7 (78%)
Additional diagnostics	8 (33%)	20 (77%)	24 (92%)	0
- Radiology	6 (25%)	14 (54%)	24 (92%)	
Place of residence after 9 months n (%)				
Living home	18 (75%)	21 (81%)	10 (38%)	2 (22%)
Without admission ED or nursing home	10 (42%)	12 (46%)	8 (31%)	2 (22%)
Deceased	3 (13%)	4 (15%)	7 (27%)	1 (11%)
Admission ED ≥ one time in 9 months	6 (25%)	6 (23%)	8 (31%)	3 (33%)
Admission nursing home ≥ one time in 9 months	8 (33%)	5 (19%)	15 (58%)	6 (67%)

Table 2. Intervention directly after consultation and place of residence after 9 months after consultation. Note: multiple admissions may be recorded per patient. SaZ= Subacute Care Path; OEC= outpatient emergency geriatric clinic; ED= emergency department; HV= subacute home visit; FU = follow-up; Care plan= planning for the (nearby) future, like assessing the need for nursing home placement.

By the end of the study, fifteen patients had died, most in the ED group (27%, 7/26). Fifty-one patients were still living at home, with the highest percentages in the SaZ (75%, 18/24) and OEC (81%, 21/26) groups. Thirty-two of those 51 patients did not experience an intercurrent visit to the ED, admission to the hospital, or (temporary) nursing home. In the ED and HV group, the recurrent visit rate to the ED and admission rate to a nursing home were highest.

PROMs and EDIZ results

QoL and perceived health increased from baseline to 6 months in all groups (table 3), with the highest reduction in the HV group at the first 3 months (+2.25). EDIZ decreased the most in the OEC group by 3.5 points, with a stable high score (8) at the HV group.

	QoL median (min-max)	Health perception, median (min-max)	EDIZ median (min-max)
SaZ Baseline n = 22	7 (2-9)	6 (0-9)	6 (0-9)
SaZ 3 months n= 14	7 (2-9)	6.75 (4-10)	-
SaZ 6 months **n= 6**	8.5 (6-10)	7 (7-10)	4 (0-8)
	increase +1.5	increase +1	decrease -2.0
OEC Baseline **n= 24**	6 (1-10)	6 (1-9)	6.5 (0-9)
OEC 3 months **n= 17**	7 (5-10)	7 (5-8)	-
OEC 6 months **n= 8**	7 (6-10)	7 (4-8)	3 (0-6)
	increase +1	increase+1	decrease -3.5
ED Baseline n= 24	7 (1-9)	6.25 (1-9)	6.5 (0-9)
ED 3 months n= 10	7 (6-10)	7.5 (5-9)	-
ED 6 months **n= 4**	7.25 (7-8)	7.75 (5-8)	4 (0-6)
	increase +0.25	increase +1.5	decrease -2.5
HV Baseline **n= 6**	5.75 (2-9)	5.5 (4-8)	8 (3-9)
HV 3 months **n= 5**	7 (6-8)	6.0 (6-8)	8 (8-8)
HV 6 months **n= 0**	-	-	-
	increase +2.25	increase+0.5	stable (0)

Table 3. Baseline and follow-up results of QoL, health perception and EDIZ across the different groups.

Discussion

Key findings

Our findings demonstrate that alternative pathways for (sub)acute problems can enable community-dwelling older adults with frailty to live at home after 9 months. The 75% and 81% of participants living at home after the SaZ and OEC consultations exceeded the 40–60% reported in the literature for older adults with comparable frailty profiles following ED visits [31–32]. This is a promising potential for supporting aging in place, which is desirable for both older adults and society [33]. The finding that more than 40% of this frail population required no acute admissions within nine months is also positive, particularly as this cohort is typically prone to a 'revolving door' pattern of frequent readmissions [34]. This promising reduction of hospitalizations and admissions to nursing homes could preserve scarce healthcare resources.

This intermediate care pathway could also be a cost-effective care pathway for aging in place. Due to its approach with a focus on welfare, with diagnostic options readily available, it offered quick identification of the underlying cause of (sub)acute problems, potentially enabling appropriate care. Consequently, this strategy holds the promise of mitigating the healthcare costs associated with an impending aging-in-place population.

Furthermore, the SaZ also maintained, or even improved, quality of life (QoL), health perception and caregiver burden. Existing evidence highlighted that following an ED visit, older adults frequently experienced a decline in perceived health and quality of life [35, while caregiver burden often intensifies during and after ED transitions [36]. The choice of a care- or cure-related care pathway is influenced by the caregiver's role. While an overburdened caregiver can lead to increased healthcare utilization, a well-supported caregiver can reduce ED visits [37–38]. These speculations are interesting in the discussion about preventing overuse and reducing health care costs. Thus, the role of the caregiver is vital, which suggests that an intermediate care pathway can alleviate caregiver burden, consequently reduce ED visits, facilitating aging in place.

It cannot be concluded that the (choice of) care pathway was the main influence that altered the outcomes, as the patients' baseline health status played a confounding role. The ED and HV pathways had the poorest outcomes and also had the highest frailty scores. However, despite their similarity, the ED and HV pathways represented very different interventions. All those patients were deemed suitable candidates for the SaZ. It could be suggested that the (choice of) care pathway nevertheless exerted a major influence on the subsequent clinical trajectory and associated socioeconomic costs.

OEC, with its focus on somatic causes and minimal involvement of the caregiver, demonstrated comparable or even superior outcomes compared to SaZ. This suggests that a social, care-based approach is not essential for an optimal care pathway. However, two factors counter this notion and may explain this discrepancy. Firstly, the OEC cohort consisted of the least vulnerable patients, with only 42% having a CFS $\geq$ 6. For these individuals, social or care-related issues may have been less prominent or already managed. Secondly, OEC itself nevertheless addressed these problems. This is reflected in the high rate of follow-up in standard outpatient clinic visits (56%) and the number of care-related interventions provided by OEC. Consequently, while OEC was able to address non-somatic domains, it

did so within a different and potentially more limited framework. This ultimately raises the possibility that the SaZ pathway, with its integrated, single-consultation approach, might offer these OEC patients even better outcomes.

Study Limitations and Strengths

The most prominent limitation of this study was the small sample size, which resulted in insufficient statistical power to detect significant differences between the groups. Despite attempts to match cohorts, baseline frailty differed across pathways, limiting causal interpretation of differences in outcomes. Furthermore, a comparison of these four care pathways might be better answered by a randomized controlled trial (RCT). Patient recruitment and follow-up data collection, particularly within the HV care pathway, were severely hampered by limited resources. In retrospect, a dedicated research team with adequate time and financial backing should have been available while performing this study. Although funding of the SaZ was anticipated at the study's onset, securing long-term financial support and governance proved highly challenging due to the interdisciplinary nature of the SaZ collaboration. Many similar Dutch healthcare innovations have faced these challenges [39].

A strength of this study is that it constitutes a unique investigation: no prior study has examined this heterogeneous group of frail older adults in a subacute setting with multiple groups across different care pathways. Although this added complexity to the study, it significantly enhanced its value.

Future research

Future research with larger sample sizes is required to further evaluate the SaZ approach and alternative pathways. This framework should be compared against community-dwelling older adults with frailty who age in place supported by only primary care. Crucial outcome measures for such studies should include appropriate care, cost-effectiveness and QoL for both patients and their caregivers.

Furthermore, while ED visits are suboptimal, they are not always avoidable, necessitating continued investment in optimizing this specific pathway [40, 41, 4, 5]. Notably, care-based interventions were absent or significantly limited within the ED cohort in this study. To address this, initiatives such as the Geriatric Emergency Medicine (GEM) team should be further developed and evaluated, ensuring a clearly defined role for the caregiver [42]. Finally, future research should focus on how the HV and ED models can function as complementary systems, for greater cooperative value.

In conclusion, when the underlying cause of a (sub)acute problem is unclear, the SaZ pathway offers a viable option for supporting aging in place and preventing admission. Managing community-dwelling older adults with frailty requires a focus on both care and cure, especially during a (sub)acute crisis.

Declarations

- The authors have no relevant financial or non-financial interests to disclose.

- No funds, grants, or other support was received.
- Informed consent was obtained from all individual participants included in the study.
- Ethical approval for this research was granted by the medical ethical committee (W22.190).

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Figures

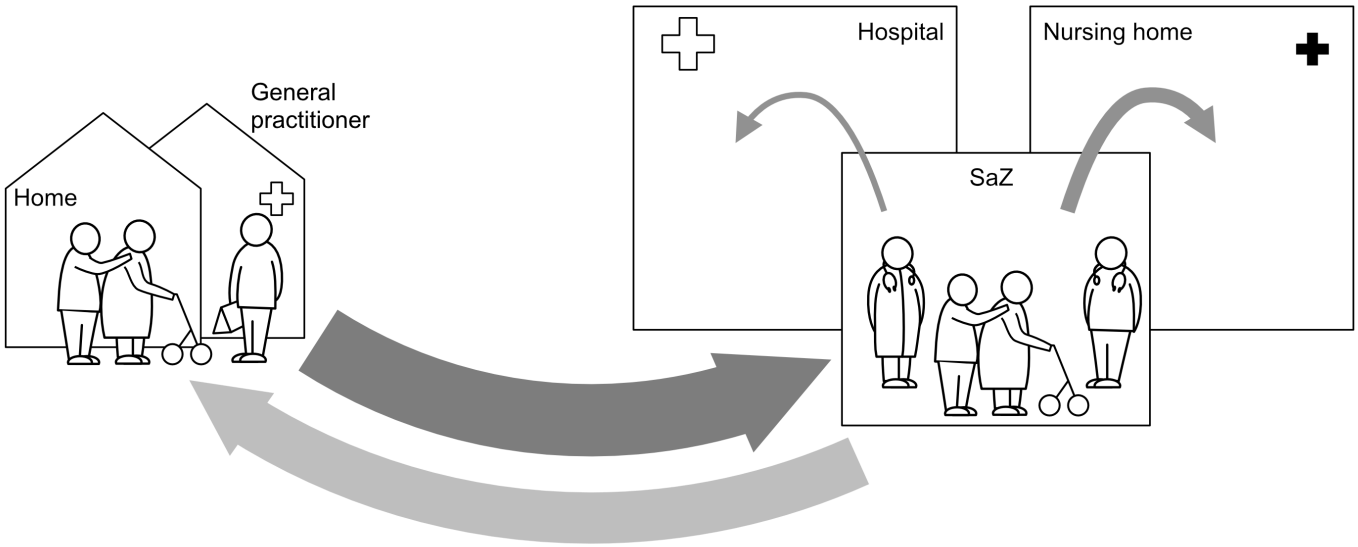


Figure 1

Graphical abstracts of SaZ. Line thickness is proportional to the number of patients.

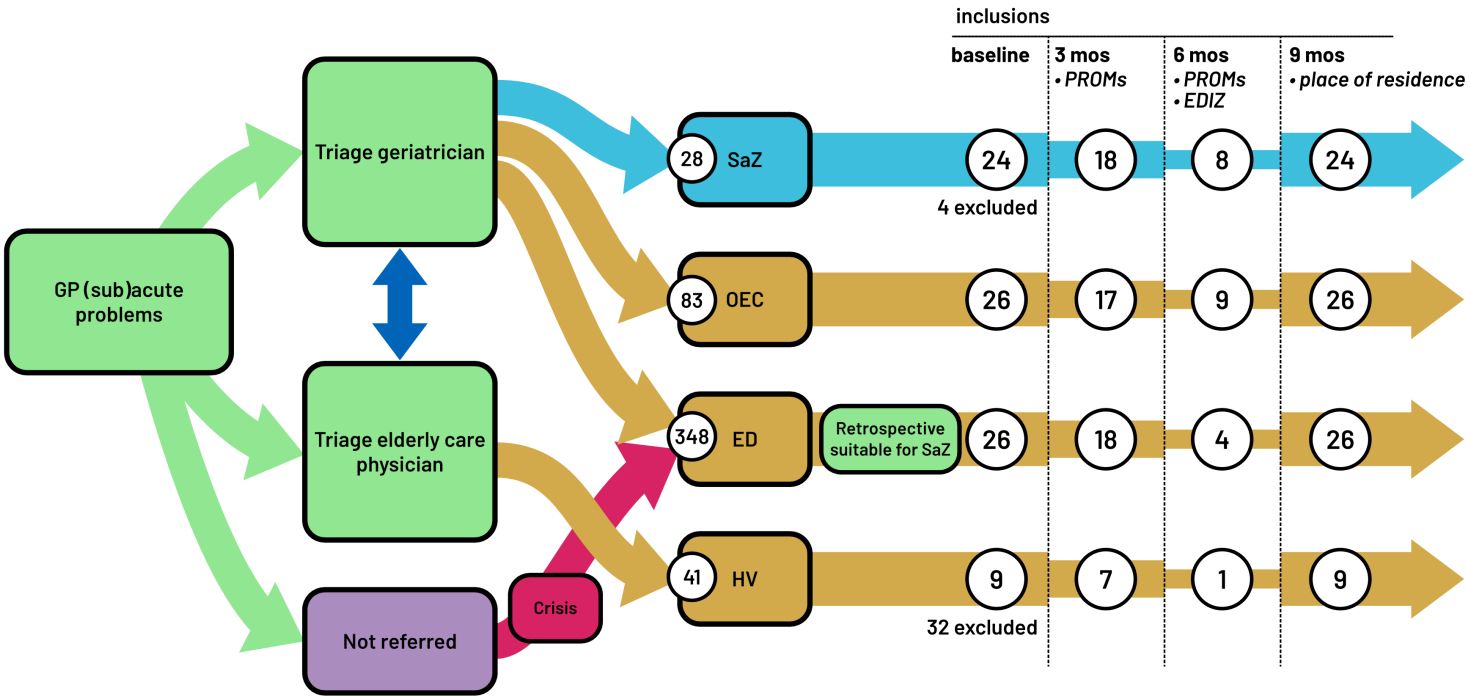


Figure 2

The referrals, inclusion, and follow-up of the research groups.

GP= general practitioner; SaZ= Subacute Care Path; OEC= outpatient emergency geriatric clinic; ED= emergency department; HV= subacute home visits; PROMs= patient-related outcome measures; EDIZ=self-perceived pressure from informal care.

Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- Addendum1.SaZprotocol.docx
- Addendum2.Researchprotocol.docx