Cross-sectoral video meetings on the care pathway of the frail, older patient

A manual for holding virtual four-party meetings about extended coordination, “V4M”, between hospitalised older patients, family members, hospital, municipality and general practitioner

Helle Sofie Wentzer and Ditte Høgsgaard

VIVE

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VIVE
The Danish Center for Social Science Research
Herluf Trolles Gade 11
1052 Copenhagen K, Denmark
www.vive.dk

Region Zealand
Primary and eHealth Care Region Zealand
Alleen 15
4180 Sorø, Denmark
www.regionsjælland.dk

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Preface

Cross-sectoral collaboration on older medical patients with multiple diseases challenges the healthcare system, the patients and their families. This report presents what could – tongue in cheek – be called a gift to cross-sectoral collaboration, namely a manual for the many knowledge actors who are crucial for ensuring the patient a safe and secure pathway across sectors. The manual describes a virtual meeting space where these actors can meet and discuss a joint care and support plan for the “unstable” hospitalised older patient. The concerns of the patient and their family play a central role when drawing up this care and support plan.

The report’s target group is clinicians, quality consultants and other stakeholders in municipalities and regions who are interested in cross-sectoral pathways and in developing the communication infrastructure of the healthcare system.

Cross-sectoral video meetings between the four parties (V4M) – the hospital, the municipality, the general practitioner and the hospitalised patient and their family – require planning. The report contains a manual for V4Ms, and an email template and instructions on how a meeting between the four parties can be organised are included in the annexes. The target group for V4M is hospitalised older patients who are “unstable” and in need of extended coordination.

The manual was developed on the basis of 11 cross-sectoral video meetings. The participating patients, their family member(s) and healthcare professionals have shared their experiences and assessment of how the video meetings have shaped their pathways. The V4M manual can be used to test cross-sectoral video meetings on a large number of unstable patients in Region Zealand in Denmark with a view to assessing the overall effect on patients and on collaboration between the four parties involved in these meetings.

The report was financed by the Novo Nordisk Foundation for explorative pathways and is a result of a research collaboration between the Municipal Health Services, Region Zealand and VIVE - The Danish Center for Social Science Research.

The project design was developed and implemented by Helle Sofie Wentzer, senior researcher and PhD, VIVE – The Danish Center for Social Science Research, and Ditte Høgsgaard, postdoc and PhD, Primary and eHealth Care Region Zealand, in close collaboration with practitioners from Slagelse Hospital, Sorø Municipality, Slagelse Municipality and patient and family representatives. On behalf of the project team, I would like to thank the many participants in the project for their time, commitment and willingness to provide their insights and to share their experiences to improve cross-sectoral pathways.

The report has been reviewed externally by a medical researcher and a nursing researcher.

Mickael Bech
Head of Research, VIVE Health, VIVE – The Danish Center for Social Science Research

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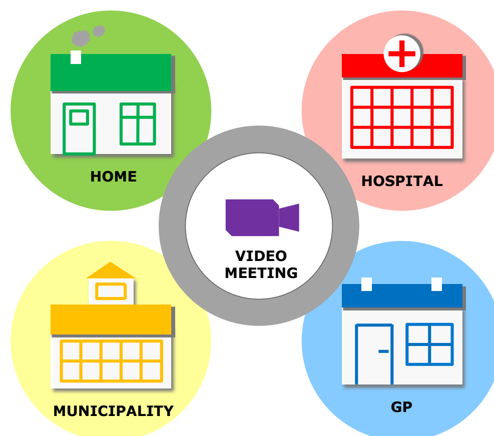
Main results

This report examines how cross-sectoral video meetings can contribute to more coherent patient pathways for multimorbid older patients who have many complex admissions and encounters with the healthcare system. The results suggest that these "unstable patients" may benefit from video conversations with and between their primary care providers at the hospital, the municipality, the home and their general practitioner (GP) and thereby experience a more safe and secure pathway. The term "unstable patients" refers to a small group of hospitalised older patients with specific patient characteristics whose life as a stable, albeit frail, patient/individual depends on good collaboration and coordination between sectors and with family members. Video technology was used to support virtual meetings between the four parties and their respective knowledge contexts: "the home" as represented by the patient and the patient's family member(s); "the hospital", which represents the specialist knowledge; "the municipality", which represents the municipal and general knowledge; and "GP", who represents the knowledge of the general practice. The conversation that unfolds during the meeting between layman and experts is based on the patient's concerns and the following question: *What is important for you?* This question is also the starting point for the actual study and pathway design.



Cross-sectoral, four-party video meeting, V4M (Wentzer & Høgsgaard 2022)

Based on 11 cross-sectoral video meetings, patients, their family member(s) and healthcare professionals have shared their experiences and assessments of how the video meetings have shaped the patient's pathway. Transcribed audio and video recordings of the conversations, review of medical record, design workshops and interviews with patients, family members and healthcare professionals were analysed and evaluated. This work resulted in three communication products supporting video meetings with hospitalised older, multimorbid patients.

Three communication products

The three products are 1) an information letter, 2) an email template and 3) a manual for video meetings between four parties (V4M) (annexes 1-3). Annex 3

is available as a link. The information letter is important because it stresses that the video meeting will be based on issues that are important for the patient as well as on the patient's own concerns and the concerns of the patient's family member(s). The email template is a practical, inter-organisational guideline, as it introduces the four parties to one another in a joint invitation with a link to the virtual meeting room. The manual is attached to this email so that the individual parties – the hospital, the municipality, the GP and the family member(s) – can see what is expected of them during the video meeting.

V4M manual v.1

The purpose of the manual is to provide instructions for how healthcare professionals can hold cross-disciplinary and cross-sectoral video meetings with patients and their family member(s). The purpose of the video meetings is to ensure a safe pathway when a patient is transferred from one sector to another, for example, when a patient is admitted to hospital or discharged from hospital. Moreover, the objective of these meetings is also to create strong, coherent pathways by extending coordination between the four parties. Version 1 of the manual is ready to be tested on a large group of patients.

Cross-sectoral action research

The manual was developed by the project's action research group and has been tested and adjusted on the basis of analysis of 11 video meetings. The video meetings took place during the patient's hospitalisation. A family member(s), the department's medical specialist and nurse and other relevant healthcare staff participated in-person in the patient's hospital room. The patient's GP and healthcare providers from the municipal sector participated online via a video screen in the patient's hospital room. Sometimes family member(s) also participated online. The meeting is based on active involvement of the patient's wishes and expectations by family member(s) regarding the patient's stay in hospital and follow-up, and starts with the question: *What is important for you, and what are you concerned about?* The healthcare professionals participate in the video meeting based on the question: *What are you concerned about in terms of the patient's course of illness during their admission and when they are discharged?*

Video meeting in the patient's hospital room with the meeting leader, the medical specialist, the nurse and a family member. The municipality, the GP and one more family member can be seen on the computer screen.

Developing common objectives and a joint plan

Analysis of the video meetings shows that extended coordination is taking place between the participants as they share their concerns about each other's knowledge perspectives and organisational practices. This extended coordination leads to agreements on common objectives and a joint plan for the patient's pathway.

The analysis suggests that the video meetings contribute to

- increasing patient safety BECAUSE treatment, medication and follow-up are agreed between all parties
- creating a sense of security for the patient and family member(s) in the transfer from one sector to another BECAUSE everyone has heard the same information
- facilitating coordination and collaboration on joint coherent solutions BECAUSE all parties propose solutions
- sharing knowledge and data BECAUSE there is a circular understanding of the patient's pathway
- increasing the quality of the subsequent pathway BECAUSE a follow-up home visit by the GP is arranged
- preventing misunderstandings BECAUSE the healthcare providers' lack of knowledge about *the other* becomes clear.

The in-depth hermeneutic analysis of the 11 conversations recorded on video shows that the extended coordination takes place as a dynamic conversation and negotiation between the four parties whose knowledge – but also fragmented perspective of the patient, the patient's situation, medical history and

life at home – is brought into play and gathered in a circular understanding resulting in a joint plan for the patient. A plan where the overall picture is bigger than the individual components.

Video meetings for extended coordination

The V4M trial shows that the video conversations create a shared space for coordinating patient pathways between their different contexts of care and treatment. At the virtual meetings, the four parties agree on common objectives and a joint plan for the patient's further pathway. As such, V4M illustrates how the healthcare service "extended coordination" that is included in the four-year health services agreement between the regions, municipalities and general practice works in practice.[1] The extended coordination at V4M takes place as a face-to-face conversation between the parties involved. It is a dialogue with many "voices", including the voice of the patient and their family member(s). This dialogue contributes to a meaning negotiation on the patient's needs and possible solutions to be included in a joint care and support plan as well as common objectives for the patient's further pathway. That is, it is also a dialogue about complex needs that cannot be coordinated simply by exchanging written documentation between the parties. It is important that all four parties negotiate meaning and understand how the other parties allocate tasks.

The parties negotiate patient stability

The conversations in V4M unfold on the basis of the participants' concerns about the patient's pathway, and focus on what is most important for the patient and the patient's family member(s). The analysis shows 10 general *themes* such as "background for admission", "medical history", "medication", "loss of functional capacity" and "life at home". V4M clearly shows that the plan for the patient's pathway, including "date of discharge" and "help at home", is coordinated and *negotiated* through a mutual discussion about how *stable/unstable* the patient is. The parties negotiate what initiatives are required if a patient is to be able to remain in their own home in spite of aggravating symptoms, and who can provide initiatives that can prevent aggravation or readmission. For example, a homecare nurse and a GP agree that the nurse will weigh a patient daily and report the patient's weight to the GP. The GP will then adjust the patient's diuretic medication as this is significant for the patient's health. This dialogue via video enables a negotiation on how a joint care and support plan and coordination can prevent a degree of instability in the patient's condition that could lead to another hospital admission. The figure below illustrates how V4M is a forum in which objectives and plans are negotiated on the basis of the elements that are most important for the patient. The model is described in more detail in the conclusion.

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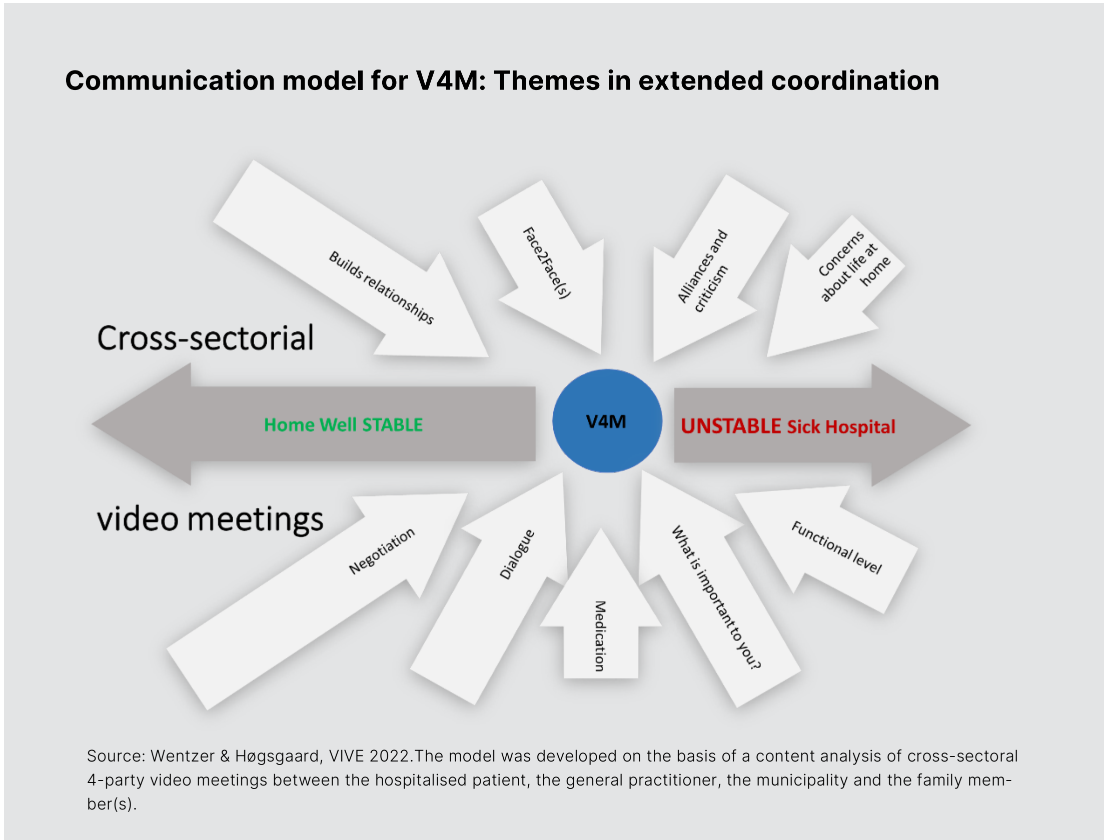
[1] https://www.sst.dk/da/viden/sundhedsaftaler



Communication model for V4M: Themes in extended coordination

Source: Wentzer & Høgsgaard, VIVE 2022.The model was developed on the basis of a content analysis of cross-sectoral 4-party video meetings between the hospitalised patient, the general practitioner, the municipality and the family member(s).

Patient profile for V4M meetings

Review of medical records shows that the patients who took part in the video meetings are on average 83 years old, have 10 diagnoses at the time of admission and have been admitted more than three times in the last year with an average of 15 admission days. In other words, these are very ill patients who have received municipal help both before and after their admission. Several of them need help to contact their general practitioner. In this project, they are referred to as patients in circular pathways, because this patient group has a continuous need for cross-sectoral collaboration on their care and treatment. Most of them also live alone. This means that that their family's capacity to provide care and knowledge about the patient's personality and everyday life is also an important theme in the conversation between the four parties at the V4M meeting.

The virtual meeting: building relationships and cross-sectoral understanding

The meetings lasted between 20 and 30 minutes. The video technology created a virtual space for conversation, visual contact and recognition between the parties, and this helped ensure motivation and commitment to continue the meeting, even when the video technology was unstable.

The conversations strengthened the parties' *circular understanding of each other and the older patient's pathway in practice*. The parties, including the family member(s), thereby learned more about each other's contexts for collaborating on the patient, taking the wishes and concerns of the patient, the family member(s) and the healthcare professionals as the point of departure. They form and align a network and a safety net of decisions regarding the patient that *proactively* seek to ensure and maintain stability in the patient's health condition. This has reassuring effects on patients with circular pathways (and their families), and it could potentially prevent readmission.

Perspectives and recommendations

Based on our analysis, we recommend testing V4M as a dialogical space for extended coordination of pathways for particularly unstable patients. These are a defined group of hospitalised older patients for whom meaning negotiation of care and treatment across sectors and professional traditions is necessary.

The results of the V4M trials are based on a limited number of patients. Determining the qualitative impact of V4M conversations on cross-disciplinary/cross-sectoral collaboration in general is therefore not part of the project design, neither are the effects of involving the concerns of patients and family members, changes in admission patterns for "unstable patients" as well as implementation advantages and disadvantages in the parties' respective organisations. A follow-up project design for testing V4M on a larger group of patients would therefore be desirable and provide knowledge about V4M's potential to ensure better circular pathways in terms of quality, patient safety and admission patterns, including the prevention of readmissions.

The V4M manual and the other two communication products can be used to organise and hold video meetings in a trial with more patients. Recruiting more patients with the described profile and need for extended coordination would be possible if more hospitals and municipalities participated. Extended testing of V4M would also provide organisational knowledge about the barriers and possibilities for developing cross-sectoral and cross-disciplinary collaboration in the healthcare system.

Research into how the parties experience V4M with regard to effectiveness and resilience is also relevant for the viability and relevance of V4M in terms of spreading this approach to other regions.

A critical point for attention in the further testing of V4M is inclusion of older patients who have no family and patients with an ethnic minority background who do not speak Danish. Extending the patient profile with such characteristics would require linguistic adjustments of the three communication products.

Resources and competences for extended coordination with V4M

A prerequisite for carrying out V4Ms at a larger scale is to prioritise personnel resources at the hospital and in the municipalities. Conversations lasting about 30 minutes in which up to six healthcare professionals meet virtually can be challenging. This requires a competent meeting leader who both has insight into the organisation and traditions for collaborating within the different sectors and the necessary technological expertise. Furthermore, the meeting takes place in the patient's hospital room, and the meeting leader must take this into consideration, for example, Wi-Fi connection, light, sound and physical set-up of equipment and participants, when planning and inviting the various parties to the video meeting.

The V4M meeting leader should have the competences to arrange meetings with the parties, set up video equipment in the patient's room in the hospital and moderate the conversation between the four parties such that the perspectives of all parties are heard, including in particular the patient's "voice".

Box 1.1 Data sources

- **Total number of video meetings:** 11 recordings with audio and video, transcribed into text material
- **Participants in 11 video meetings:** 64 broken down by 11 patients, 16 family members, 14 healthcare professionals from two hospital departments (cardiology & geriatrics), 13 participants from two municipalities and 10 GPs
- **Qualitative user interviews:** a total of 41 interviews, 22 of which with patients and family members, 12 with the hospital, 6 with the municipality and 1 with the general practice
- **Written information**: Via email correspondence, the general practice provided 7 evaluation forms with information regarding duration of the video meeting.
- **11 patient medical records and discharge summaries:** review of diagnoses, admission and discharge

1 Introduction

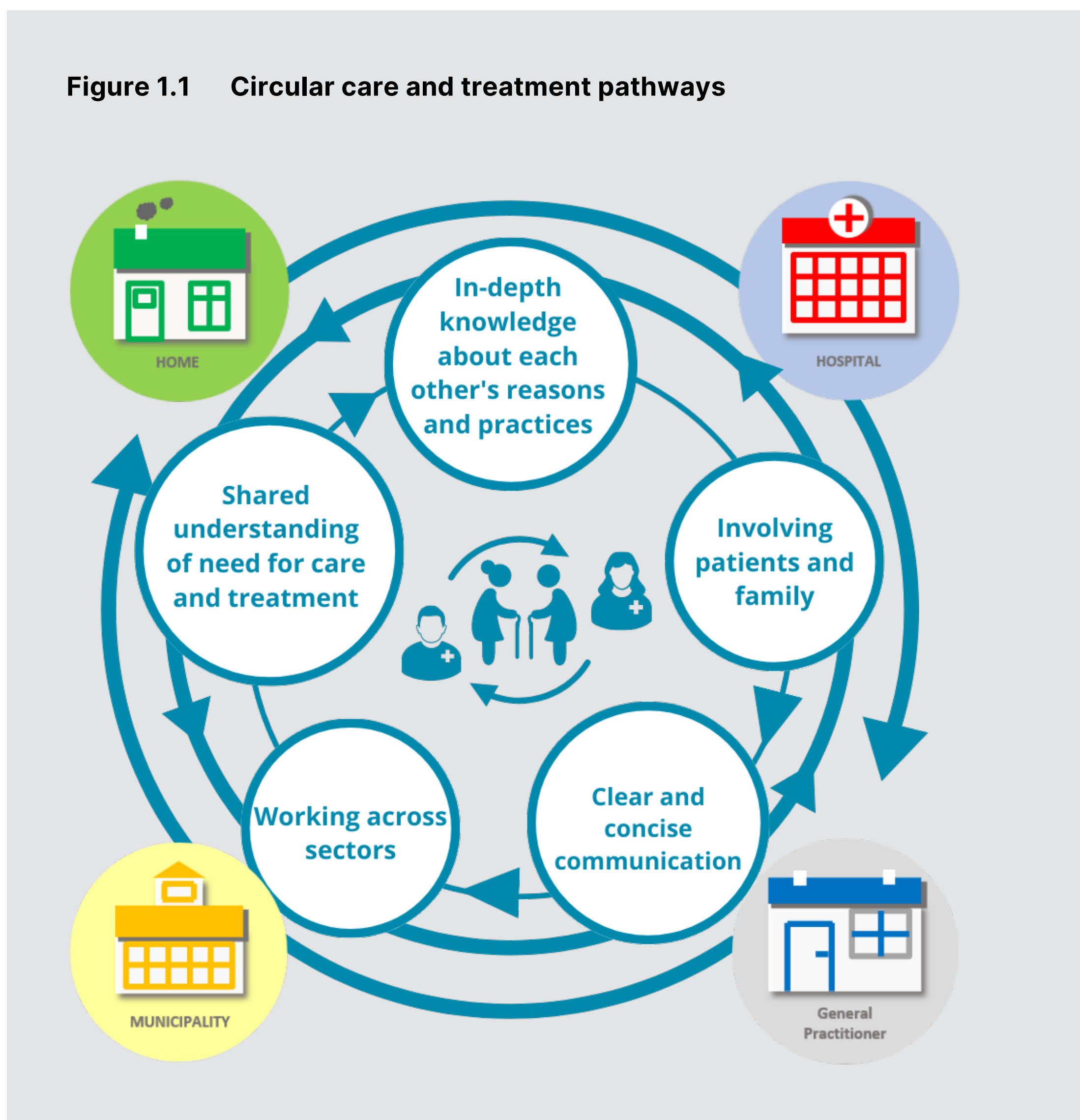
People with complex needs experience a lack of coordination across teams and sectors

Davidson et al. (2021) A systematic review,
International Journal of Care Coordination

For decades, cross-sectoral collaboration has been a challenge when it comes to creating coherent patient pathways. Such collaboration is particularly challenging in matters involving frail older patients with multiple and chronic diseases who need continuous help from both sectors (Høgsgaard 2017a, 2017b; Wentzer, 2020a, 2022b). These are individuals who will remain patients for the rest of their lives: They are not going to recover and have to learn to live their lives with multiple diseases. They are caught in what can be referred to as a circular pathway in which they circulate between several professional traditions, medical specialities and sectors. Their everyday life, including their functional level and their sense of security, depends on *extended coordinated collaboration* between healthcare professionals. Such collaboration requires that healthcare professionals across sectors and disciplines are familiar with each other's practices and are able to communicate about the patient's needs and coordinate tasks. Electronic documentation is not sufficient to ensure continuity of care and patient safety. The cross-sectoral field is known as the "Bermuda Triangle" in that many "errors" are reported as adverse events and patient complaints.

Figure 1.1 shows five elements that are key to healthcare professionals' collaboration across the sector, as they contribute to a "circular understanding" of the pathway they plan together for the patient. In practice, however, cross-sectoral collaboration is characterised by a silo mentality, which has negative consequences for the pathways of patients with multimorbidity (Frølich et al., 2017). Thus, innovative solutions are particularly needed in cross-sectoral pathways that can contribute to a circular understanding across the organisation and contexts of key healthcare providers: "the hospital", "the municipality" and "the general practitioner", also known as "silos". This also includes the "home" as the context that constitutes the setting for the patient's functional level, health stability and everyday life.

Figure 1.1 Circular care and treatment pathways



Source: Høgsgaard et al., (working paper); Wentzer, 2022a.

1.1 Extended coordination with video

Other trials have been developed to improve cross-sectoral collaboration on older patients with multiple hospital admissions. “Follow-up home visits” is a national intervention to improve cross-sectoral collaboration on the older “medical patient” (Danish Health Authority, 2007; Voss, 2009). However, it has proven difficult to implement in practice. Factors such as geographical distance, coordination and the GP’s busy schedule are barriers (Hjelmar et al., 2011; Hendriksen & Vass, 2015; Bjørnholt & Gjørup, 2016). Attempts have been made to innovate follow-up home visits using video (Wentzer, 2013, 2015). However, implementation was challenged by inadequate video infrastructure between the parties and caused insecurity for patients (Wentzer, 2018). The

Covid-19 pandemic and restrictions on in-person consultations have made video consultations with the general practice more widespread (Greenhalgh et al., 2020; Wentzer, 2020a) as well as with municipalities and hospitals (Wentzer & Ballegaard, 2022). Digital solutions have thus been established in both sectors and in the contact to patients/individuals. This makes trials with video technology a possible solution to innovate cross-sectoral patient pathways (Wherton et al., 2021) and the patient safety in such pathways (Caspersen & Kristensen, 2020). In this project, VIVE and the Municipal Health Services in Region Zealand examine the following question in an action research design:

> *How can video meetings contribute to a circular understanding of citizen pathways across sectors and thereby increase the quality of as well as continuity and safety in patient pathways?*

A derivative question is: *How does the "virtual meeting room" of a video meeting support participants' formation of understanding through their audio-visual communication?*

Based on the identified experiences from the video trial, the purpose is also to *develop a design that can support cross-disciplinary communication and collaboration with and about the patient*.

1.2 The four parties

The participants represent different knowledge contexts (Mol, 2002; Wentzer, 2006, 2015, 2020), all of which are essential in circular pathways:

- The hospital where the hospital physician and other healthcare professionals are responsible for the specialised treatment and care during the patient's admission
- The municipality and its healthcare professionals who are responsible for care, equipment, rehabilitation and homecare at municipal level
- The general practice (GP), that is the family doctor who is familiar with the patient's medical history and responsible for the patient's treatment after discharge
- The home is the setting of the patient's everyday life, and the family is also familiar with this setting

Participants are thus part of different physical/geographical and organisational contexts; these contexts influence the participants' questions and knowledge

about the patient, including their contribution to the conversation about the patient's pathway and how to coordinate this. Video trials therefore provide privileged knowledge and insight into the "Bermuda Triangle", such as the cross-sectoral topics and issues that are essential for creating a circular understanding. The following analysis questions were asked about the video meetings between the four parties:

> *What do they talk about at V4M? Is the patient involved – that is, seen and heard? How do participants interact and relate to one another? What conflicts or disagreements arise, and how do they affect the conversation and the circular pathway?*

The following evaluation questions about how the users experiences the video meeting were asked: What impact did the meeting have on the patient's onwards pathway? What did the parties think about participating in the video meeting? Did V4M make sense in terms of content and technology, as well as practically (time)?

The trial was carried out as part of an action research project with representatives from the different knowledge parties, particularly the hospital, the municipality and the patient and the patient's family member(s). General practitioners are not very well represented in the action research group; however, they participated actively with their patients in 10 of the 11 trials.

1.3 Reading guide

This report is relevant for clinicians, quality consultants and other stakeholders in regions and municipalities who are responsible for cross-sectoral pathways and for developing forms of collaboration that use video in the healthcare system. The report illustrates the barriers and opportunities that have proven significant for creating quality in coherent care pathways, and can therefore be used as further inspiration when conducting video meetings.

The following chapter gives a short presentation of action research and the use of dialogue design to develop, test and analyse V4M. The chapter also contains an overview of the data material used in this project. Then follows five sub-analyses, which describe the following:

1. The patient profile for the patients who took part in V4M
2. The content of the V4M conversations
3. User interaction and experience of the V4M conversation
4. The meeting leader's role in V4M
5. The role of the parties in V4M

The conclusion summarises the analysis results in accordance with the research question about how video can contribute to a circular understanding and the parties' assessment of how the conversation has shaped the patient's pathway.

2 Action research with dialogue design

The V4M manual was developed based on an action research project (Høgsgaard, 2017). Action research aims at understanding a practice by actively changing the practice, and at understanding a practice through the participant's democratic, active and common construction of meaning (Nielsen, 2005, 2010). This project includes three groups: an action research group, a user group and a network group – all of whom are practitioners within health research, management, care and treatment, including patient and family representatives. Together, they have in-depth knowledge about the challenges of cross-sectoral collaboration, its shortcomings and the need for change. All three groups are co-researchers in the project and contribute to identifying issues and the need for solutions, including testing of video to address the communicative challenges in the cross-sectoral field. The dialogue design was chosen to support the process between the three groups of testing and organising the video conversations with each other, including the patient and the family member(s) (Nielsen et al. 2004). Dialogue design is a system development method seeking to develop and adapt technologies to the users' practice through dialogue and negotiation of meaning between central knowledge representatives of the involved practices (Coto et al., 2009; Wentzer, 2013, 2015, 2022). The dialogue design in the project was carried out through a number of workshops with the three groups. The workshops secured continuous development in the project and had the following four objectives:

1. to select a solution to a cross-sectoral communication issue in circular pathways via a video meeting
2. to develop and test a communication design for cross-sectoral video meetings
3. to evaluate test results for redesign of the communication solution: Manual for virtual four-party meetings, "V4M"
4. to infer recommendations to use the V4M manual for patients in cross-sectoral pathways.

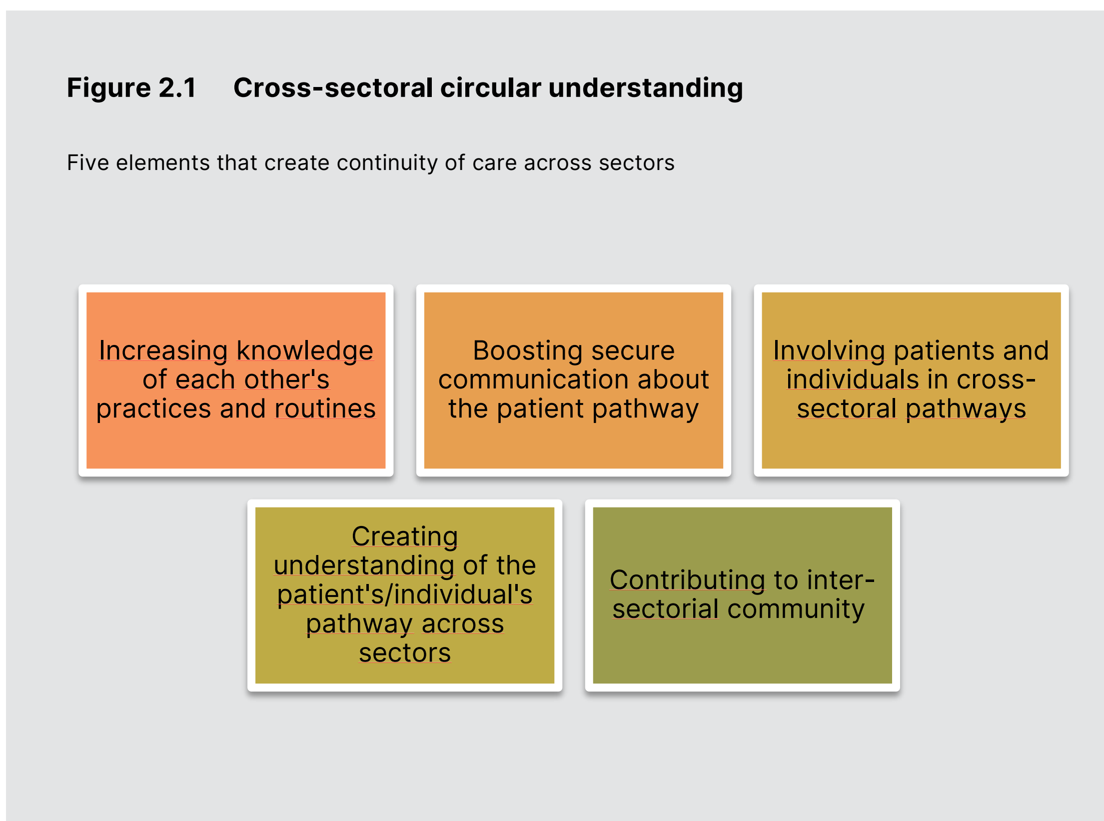
The following sections introduce the three groups who played a central role in developing and testing V4M.

2.1.1 The action research group

Since 2019, the action research group has been part of the action research project on changing and improving cross-sectoral collaboration at Næstved, Slagelse and Ringsted Hospital in collaboration with the municipalities of Slagelse and Sorø, the general practitioners of the area as well as patient and family representatives. By first problematising, clarifying and describing the challenges in the cross-sectoral collaboration, the action research group identified five elements as central to being able to achieve a good coherent care pathway for multimorbid patients, who often circulate between the following four contexts: the home, the hospital, the general practitioner and the municipality.

Figure 2.1 Cross-sectoral circular understanding

Five elements that create continuity of care across sectors



Note: Circular care and treatment are based on five key elements: 1) in-depth knowledge about each other's rationales and practices, 2) involvement of patients and family members, 3) precise and secure communication, 4) cross-sectoral working relationships, 5) a common understanding of the need for care and treatment.

Source: Høgsgaard, 2016.

In order to achieve better circular pathways, the action research group suggests testing cross-sectoral video meetings as a forum in which it is possible to obtain “extended coordination” in a circular understanding.

The action research group represents several fields of knowledge and knowledge practices in cross-sectoral patient pathways. The group consists of the following participants:

- Patient representative Sabrine Rasmussen
- Family representative Sussie Lundberg
- Clinical nurse specialist Elsebeth Heuser, Hospital
- Practice development nurse Mia Worm Hansen, Municipality
- Physiotherapist Charlotte Eisvang, Municipality
- Healthcare consultant Tine Roland Hougaard, Municipality
- Registered nurse, department of cardiology, Marianne Kærlund Østergaard
- Registered nurse, department of geriatrics, Lisbeth Bak Sørensen
- Municipal physician Bo Lindberg
- Principal investigator Ditte Høgsgaard, The Municipal Health Services
- Workshop and process leader, senior researcher Helle Sofie Wentzer, VIVE.

The action research group held a total of five sets of 3-4 hour workshops.

Table 2.1 Overview of activities to develop and test cross-sectoral video meetings

Design of video meetings	WS 1+2+3	WS 4+5	WS 6+7	WS 8+9+10	WS 11+12
Theme	Design of the V4M manual for the joint care and support plan focusing on the content of the conversation. Determining the target group	IT and technical equipment	Preparation of V4M in practice	Analysis and discussion of V4M	Discussion of results and preparation of the final network meeting
Participants	Action research group	Action research group, IT experts from the region and municipalities	Action research group	Action research group	Action research group

The workshops typically included presentations from researchers, clinicians or experts that were followed by group discussions and a joint decision on the target group, content and choice of IT solutions. The action research group

chose video as a possible innovative solution to cross-sectoral communication challenges (Wentzer, 2020b; Wentzer & Ballegaard, 2022). The video client from MedCom, VDX, was chosen on the basis of convenience. All regions in Denmark use VDX for data secure contact with patients/consultations with patients.

2.1.2 User group

Various user groups were invited to take part in the project to give their perspectives on how V4M can be implemented in practice and share what it was like for them to participate in the meetings. The groups comprise individuals with "hands-on" experience in testing cross-sectoral video meetings in selected patient pathways and patient and family representatives. The purpose of these user groups is to include practitioners with direct experience in testing V4M. The groups participated in four workshops to allow users to influence the design of cross-sectoral meetings using video (Spinuzzi, 2005). The user groups thus participated in discussing and detailing the development of a guide for video conversations on admission and discharge as well as evaluation.

Table 2.2 Workshop activities in the user group

Design of video meetings	WS 1	WS 2	WS 3	WS 4
Theme	Introduction to the design for V4M upon admission	Evaluation of V4M in connection with admission	Introduction to the design for V4M upon discharge	Evaluation of V4M in connection with discharge
Participants	Representatives from the hospital, municipalities and patient/family representatives	Representatives from the hospital, municipalities and patient/family representatives	Representatives from the hospital, municipalities and patient/family representatives	Representatives from the hospital, municipalities and patient/family representatives

Source: VIVE

2.1.3 The network group

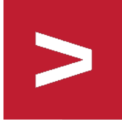
The network group comprises individuals with managerial powers from the participating hospital and municipalities in order to realise the trial in practice, and to allocate personnel resources at the hospital and in the municipalities to

take part in the trial. Between 24 and 30 individuals participated in the two meetings. At the meetings, the action research group's status and proposals were discussed and clarified.

Table 2.3 Meeting activities in the network group

Design of video meetings	WS 1	WS 2
Theme	Introduction and discussion of testing V4M	Final presentation and discussion of the V4Ms completed
Participants:	Managers, quality consultants and experts from departments and municipalities	Managers, quality consultants and experts from departments and municipalities

Source: VIVE



Action research case

Medium-sized regional hospital and two municipalities

Inclusion criteria:

- Newly admitted patient (approx. 2 days after admission, medical department).
- Older than 65, resident of X or Y Municipality
- Chronically ill and multimorbidity (more than one disease)
- Needs homecare/home nursing care before and after admission
- Primary department: department of geriatrics or cardiology

Ethics: The patients included (19 individuals in total) were informed orally and in writing about the research project and were promised anonymity. The project was registered with the Danish Data Protection Agency and complied with the guidelines for data ethics.

Organisation and funding: The action research project was carried out by the Municipal Health Services in Region Zealand. A monitoring group consisting of managers from the participating hospital and from the two municipalities, a general practitioner and patient representatives was affiliated with the group. The hospital and the municipalities themselves financed the staff hours spent in connection with the development, implementation and evaluation of V4M. Funding from Novo Nordisk covered payroll costs for researchers from VIVE and the Municipal Health Services, expenses for technical equipment as well as a fee for the participating general practitioners.

Box 2.1 **Data and method**

The manual was developed on the basis of the following question: *How can video meetings contribute to a circular understanding of citizen pathways across sectors?*

- **Research meeting activities**: carried out from March 2021 to April 2022: 18 workshops
  - Action research group: 12 workshops
  - User group meetings: 4 workshops
  - Network group meetings: 2 workshops
- **Case on cross-sectoral pathways**: 1 hospital, department of cardiology and department of geriatrics; 2 municipalities and 10 general practitioners.
- **Inclusion of patients for video meeting**: 19 patients
  - 11 patients took part in the video meetings
  - 3 patients did not wish to participate
  - 3 general practitioners did not have time to participate
  - 2 video meetings were cancelled due to heavy workloads at the hospital
- **Participants (64) in 11 video meetings**
  - Hospital: 14 participants, 3 of whom were cardiologists, 2 geriatricians, 7 practice development nurses and 2 physiotherapists. Attended in-person.
  - Municipality: 13 participants, 9 of whom were homecare nurses, 4 municipal homecare assessors and 2 physiotherapists. Attended via video.
  - Patients and family members: 11 patients and 16 family members, 12 of whom from the hospital room and 3 via video. 1 absent family member due to an oversight.
  - General practice: 10 general practitioners. 1 absent for unknown reasons. Attended via video.
- **Qualitative user interviews**: a total of 41 interviews, 7 reported information.

- Hospitals: 12 interviews, 5 of which were with physicians and 7 with nurses. Two of the nurses were V4M meeting leaders.
- Municipalities: Interviews with 2 municipal homecare assessors, 3 homecare nurses and 1 physiotherapist.
- Patients: 9 at hospital and 7 in the home. 4 patients died immediately after discharge.
- Family members: 6 family members, 2 of whom were relatives of deceased patients.
- General practice through question guide/reported information: 7 returned, 1 oral report and 1 report via email.

- **Interview guide/question guide, healthcare professionals:**
  - What was the outcome of the video meeting?
  - How much time was spent and how many resources were used?
  - What was particularly good/bad about the video meeting?
  - Suggestions for improvement?

- **Interview guide, patient/family member(s):**
  - How did you think the video meeting went?
  - What was the most important thing that took place?
  - What was new?
  - Would you like to do it again?
  - Did you find the video meeting relevant for your situation?

2.2 Analysis 1: Patient profile

Box 2. Data and met SEQ Boks * ARABIC \s 1 hod
Review of 11 patient medical records and discharge summaries for the general practitioner

Patient profile of the patients included

- Age 83.3 (Median 80)
- Number of admission diagnoses 10.3 (Median 9)
- Number of admissions in the last year 3.3 (Median 1)
- Admission days 15.1 (Median 14)
- Women: 6, men: 5

Review of patient medical records shows an average profile in relation to several parameters, see Box 2.3. These parameters will be described in the following sections using examples from analysis 2 that is based on content analysis of the V4M conversations.

- Age

The average age of patients was 83.3 years. The youngest was 73 years old, and the oldest was 98. That is, many of the patients were also weakened by old age. Several of the V4M trials also show that several patients struggled to see and hear what was going on both in the patient's hospital room and on the video screen. This means that particular attention must be paid to adapting the technical equipment to the level of the patients. The age and multiple diseases of the patients also indicate that it would make sense for the conversation to include a dialogue about the patient's wishes and expectations to their final phase of life, and how this could impact the joint care and support plan and coordination of the pathways. The conversations did not address end-of-life questions, although several of the participants were at an advanced age. This highlights the well-known challenge many healthcare professionals face regarding conducting an end-of-life conversation with the patient (Bergenholtz, 2020). For example, when, in one of the video conversations, the patient Birthe says: "*All I want is to be able to stand up and walk, and go home*

to Karlo," this may be interpreted as Birthe does not want the doctors to continue their diagnostic evaluation of her conditions. It may also indicate that she feels anxious about being in hospital and about her life situation; that Birthe would prefer to go back to the life and physical state she knew before she was admitted to hospital, a life that has changed after she fell, for example. Her future prospects are uncertain. Birthe's full case in connection with V4M is described in Analysis 2, section 2.3.

- Admission diagnoses and care pathways

On average, patients had 10.3 admission diagnoses, ranging from 7 to 20 diagnoses. This number is based on the admission diagnoses recorded in the patient's medical record upon admission. The number is uncertain because the physician admitting the patient would have to make sure to remove any diagnoses no longer relevant for the patient. Despite this uncertainty, we see that the patients have multiple diseases, and they are therefore challenged in the encounter with a healthcare system that is organised according to medical specialities (Frølich et al., 2017). This is evident in Birthe's case: she has a current pain problem, heart disease and kidney disease as well as an infection. Seven patients had a diagnosis involving some type of infection, three of which were Covid-19 diagnoses. The multiple diagnoses of patients indicate that an infection is the straw that breaks the "patient's" back. As Birthe's general practitioner stresses, her infection is the reason why he no longer can be treat her in her own home and this is why he has to admit her. The patients' many diagnoses at the time of admission shows that the patients included in this study have multiple diseases, but it also indicates that an unrelated infection is the straw that breaks the 'patient's' back and the reason they are admitted to hospital.

- A break with the medical speciality approach

Analysis 1 of the communication and interaction in the 11 video conversations shows that the general practitioner tends to take charge and asks questions across specialist areas during the discussions between the four parties, for example, when Birthe's GP asks questions about her COPD diagnosis, pain treatment and other aspects of her treatment. This demonstrates the complexity of the patient's situation; the GP is involved in all aspects, whereas the cardiologist is primarily focused on Birthe's heart problems as she is admitted to a department of cardiology – and if Birthe is to be examined for COPD, she would need to be transferred to the lung department. The discussions thus *break* with the medical speciality approach, and focus is *both* on the knowledge possessed by the GP who can provide information about the patient's current ailment *and* on the *concerns* the patient may have for the future. This shows that the different contexts become significant for the conversation. Of the 11 video meetings, the GPs took part in 10. This testifies that the

video meeting also becomes a setting in which the GPs can ask questions about an often complex and specialised treatment plan – questions that in the nature of things cannot be posed to a comprehensive and partly auto-generated discharge summary from the hospital.

- Admissions – and readmissions – within the last year

For this group of patients, we find that, on average, they have been admitted 3.3 times within the last year, ranging from 0 to 9 admissions. Data was collected through the patients' medical records, and we have looked at the 12-month period leading up to the date of the current admission. Again, this shows that this group of patients is frail and has several needs with regard to the healthcare system. Data shows that they need municipal care and treatment, but they also need specialised treatment at hospital. Again, the general picture of the patients' previous diagnoses points to an infection, and that their basic disease, for example heart failure, is causing more and more health challenges.

We followed the patients after they were discharged and reviewed their discharge summaries. In accordance with an agreement between the hospitals and the general practitioners, the hospital physician must stratify patients according to the level of attention the individual patient should be given from the GP (Danish Patient Safety Authority, 2019; Danish Regions, 2019, p. 3). In the patient discharge summaries we reviewed, three patients were stratified as YELLOW and the rest were categorised as GREEN.[2] Considering that the patients had multiple diseases and were physically weakened at the time of their discharge, it is surprising that we did not find patients who were RED. This indeed calls for the need to coordinate collaboration across medical specialities and sectors.

We followed up on the patients' admission three to four months after their V4M conversation and found that four patients had died and that five patients had been admitted again within three months. We cannot draw any conclusions as to whether the cross-sectoral video meetings have had an impact on the number of new admissions. The data material we have on this is too limited to conclude whether the video meetings reduce the need for readmission. We see a slight tendency towards using V4M to prevent deterioration of the patient's condition and thereby readmissions, for example, when the general practitioner agrees with the homecare nurse that the municipality must weigh

[2] Danish Regions (2019) has the following definition: "Red discharge summary: The discharging physician assesses that the patient needs follow-up in general practice within 1-2 working days after discharge from hospital. Yellow discharge summary: The discharging physician assesses that the patient is particularly vulnerable and that the patient themselves (or via network/homecare) is not likely to contact the general practice after discharge and has a special need for active follow-up in general practice within 14 working days. Green discharge summary: Other discharge summaries containing recommendations on follow-up in general practice. White discharge summary (blank): Discharge summaries without recommendation regarding follow-up by the general practitioner," p. 1.

Birthe regularly and report her weight to him, so he can adjust her diuretic medication. This agreement and collaboration between the general practitioner and the homecare nurse help stabilise Birthe's condition after she has returned to her home. Moreover, for four of the patients, the GP arranges a follow-up home visit with the homecare nurses once the patient has been discharged from hospital. Other research shows that follow-up home visits after discharge by the general practitioner and a homecare nurse help reduce the number of admissions (Danish Health Authority, 2007; Voss, 2009; Hjelmar et al., 2011).

- Number of admission days

On average, the patients were admitted for 15.1 days, ranging from 9 to 26 days. Compared with the average admission time of 5.6 days (KL - Local Government Denmark, 2020), these are surprisingly long admissions, which again indicates that this patient group is frail and complex. The long admission time was not due to the patients being kept in hospital for longer than necessary because they were waiting for a municipal care programme; it was primarily due to the patient's disease progression, for example, fluctuating infection count, diuretic treatment, lung problems, diagnostic evaluation of a disease and supervision and collaboration between the specialist areas.

Perhaps the video meetings can contribute to shorter admissions in the long term, as they give rise to questions about the patient's treatment plan and a discussion of which tasks are to be carried out across sectors and which tasks can be carried out by the homecare nurse. In one example from the video conversations, a municipal homecare assessor and a family member agree on how many times the homecare nurse will visit the patient at home after discharge and that the patient does not need a short stay in a temporary municipal care home, which could have increased the number of admission days due to a limited number of places in the municipality.

- Gender and the situation at home

Six women and five men participated in the video meetings. They all had family. Four of the patients lived with their partner, and seven lived alone. One lived at a care centre, and two were going to a municipal relief care home/temporary care home. They had all been in contact with municipal healthcare providers before their admission. Again, this suggests that this is a patient group that is challenged – also at home where they live alone, and this is likely to cause additional problems (Siren et al., 2018). We found that all the patients had family living within driving distance. Most of them had a close relationship with their family, and it was clear that the family members were very

interested in participating in the video meetings, not least to clarify the challenges they anticipate in connection with the patient's discharge and to their voice their concerns.

2.2.1 Summary

The profile analysis of the patients who took part in the video meetings gives rise to some points for attention and possible research hypotheses for further investigation. The V4M conversation enables a break with the medical speciality approach in connection with complex patients. It also shows that the GP plays a pivotal role in the extended specialised, coordinating dialogue. Furthermore, we see that V4M can prevent readmissions when the municipality and GP agree to make follow-up home visits. We also see that, when family is involved, V4M can prevent situations where patients are kept in hospital for an unnecessarily long period simply because they are waiting for a spot at a municipal care home. V4M seems particularly promising as a suitable offer for patients who live alone and/or for patients who are challenged by their situation at home.

2.3 Analysis 2: Themes in V4M

Box 2.2 Cross-sectoral analysis of 11 V4M conversations

Textualized data, ethics and analysis questions (Ricoeur, 1981)

- The themes were inferred on the basis of a cross-sectoral analysis of
  - 11 V4M conversations, 10 of which were recorded with both audio and video, and 1 was recorded as an audio file. All sound recordings were transcribed into text
  - Observation notes of the video conversations.
- The analysis partly identified topics through meaning condensation and interaction analysis:
  - Which parties bring up which topics?
  - What creates development and progress in the dialogue?
  - How do the participants position themselves, and how active and passive are they?
  - What relationships do they form and with what overall objectives?
  - What do their perspectives say about their respective context?

The following themes provide insight into the content of the cross-sectoral conversations.

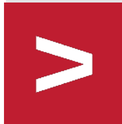
Themes in V4M

The cross-sectoral and cross-disciplinary video conversation between the hospital, the general practitioner, the municipality and family member(s) lasts 25-30 minutes and has the following themes:

Source: Wentzer & Høgsgaard, VIVE 2022. Analysis of video material and transcribed audio files of 11 V4M conversations.

The 10 themes listed in the box above provide insight into the meeting and the content of the conversations. The themes unfold dynamically between the participants and their respective perspectives, thus addressing all aspects of the patient's situation before and during admission as well as the next step: when the patient is to be discharged, what will happen at home and the framework for this.

The patient case “Birthe” in the box below unfolds 10 themes.



V4M conversation for patient case “Birthe”

Birthe is sitting upright in the hospital bed. There are four other people in the room with her: the cardiologist responsible for her treatment and a nurse, who is also the meeting leader and who controls the equipment and the conversation, as well as family members. Birthe’s cohabitant Karlo and one of her daughters are also in the room. Another daughter, the municipal homecare nurse, a therapist from the municipality’s acute team and Birthe’s general practitioner are on the screen. Everybody introduces themselves to one another, and it is clear that they know each other, for example, the GP says: “*Hi Birthe, do you recognise me? I’m Jens, your GP, I’m the one who ships you off to hospital when we can no longer take care of you at home.*”

After a short round of introductions, the meeting leader asks Birthe what is important for her. Birthe says that all she wants to be able to do is to stand up and walk, and then go home to Karlo.

- **Status and summary of admission**

The hospital physician opens the conversation by explaining why Birthe has been admitted to this department, namely because she has water in her lungs, which may be due to her having a weakened heart. Birthe’s heart is therefore being examined, and she is receiving diuretic treatment. The GP then interrupts and asks: “*Have you sorted out Birthe’s pain treatment in connection with the pelvic fracture she came home with last time?*”. The hospital physician and the nurse look at one another in surprise. They have not been aware of Birthe’s pain. They explain that Birthe has not been out of bed much, and this may explain why she has not complained of pelvic pain. The participants start talking about Birthe’s pain treatment, a treatment that is important for Birthe to be able to stand up and walk. The general practitioner and the cardiologist exchange knowledge and experiences. For example, the cardiologist asks the GP what pain treatment is best in his experience. The general practitioner says that it is not easy, because Birthe is prone to nausea and her poor kidney function also needs to be taken into account.

- **The situation before admission**

The municipality elaborates that it has been difficult for Birthe to follow the rehabilitation plan from the hospital after her pelvic fracture. It seems as though she does not have enough air/oxygen to do her exercises. Karlo confirms that it is also difficult for Birthe to stand up and walk to the bathroom. He helps her. The municipality explains that the couple has said no to installing a care bed in their living room, and this is why Birthe has not received much help. In a tearful voice, Karlo says that now they are ready to accept more help from the municipality, and this is supported by the daughter who says: "*Yes, you need more help. You (Karlo) are not getting any younger.*"

- **Treatment plan/level and adjusting medication**

During the conversation, focus shifts from the fluid build-up caused by Birthe's heart condition to her pain, fatigue and her difficulty breathing that prevents her from moving about and doing her exercises at home. This is what is most important for Birthe. The GP says that he can see that the last discharge summary says that Birthe suffers from the lung disease COPD. He says that this is news to him and asks whether it is something the hospital has diagnosed. The hospital physician says that they cannot conduct a diagnostic evaluation right now at the department of cardiology, and that they can refer Birthe to the lung department, but waiting times are long.

- **Functional level – being able to do the same as before**

All Birthe wants is to be able to do the same as she could before she was admitted, but she also acknowledges that she is very tired and she does not have the strength to do her exercises, not at the hospital nor in the municipality. Karlo helps her when she needs to use the bathroom. The therapist interjects with some information about how Birthe's rehabilitation was going before she was admitted: "*Birthe, you were very tired and didn't have the energy to do your exercises. So, it doesn't make sense to give you a rehabilitation plan, you're simply too tired and exhausted for that.*" They agree that it is best for Birthe if her rehabilitation is provided by the municipal in her home.

- **Concerns and frustration of the family members**

The GP says approvingly to Karlo that he knows that Karlo has done a lot for Birthe and that he has taken on a huge responsibility. Karlo nods with tears running down his cheeks. The daughter on the screen confirms that Karlo takes care of their mother. The municipality offers to help them. Karlo says

that they would both like to accept some help. He says he knows that he said they could cope on their own, and that they did not want any equipment, but now they do. The homecare nurse will talk to the municipal homecare assessor about this. The daughters would very much like Birthe to stay in the same department throughout her admission. The nurse says that they will do their best to make sure she does.

- **Negotiations about when to discharge Birthe**

The GP explains that Birthe is too weak to come to his practice for an examination, and therefore she cannot have a lot of blood tests taken by him immediately after being discharged. They will have to make a plan for this when she is discharged. The GP also stresses that Birthe needs to be fully diagnosed and fully treated upon discharge, that she is very frail and quickly “falls apart” if everything is not in place. The cardiologist says that Birthe is not ready to be discharged yet, and that they they will make sure that she has been fully diagnosed and has a clear treatment plan when she is discharged.

- **Concerns about the future**

The GP is concerned about Birthe’s situation if she were to be discharged too soon. The homecare nurse is concerned about Birthe’s fatigue. She says that Birthe sometimes falls asleep during a conversation. The nurse says that Birthe has also been very tired during her time in hospital, and that they need to be aware of this. The cardiologist talks about looking at Birthe’s medication and whether anything can be changed. Karlo and the daughters are worried that Birthe will be discharged too soon.

- **Follow-up plan after discharge**

The GP suggests that the homecare nurse report Birthe’s weight to him and keep an eye on whether she gains weight. If so, they should contact him, and he will then adjust her diuretic medication. The homecare nurse nods and confirms that they weigh Birthe daily. The GP offers to pay Birthe a follow-up home visit. Birthe and Karlo would like that, and the daughters also say that it is reassuring for them to know that her situation will be followed up after discharge. The hospital nurse says that Birthe is very weak and that she needs a lot of help. The homecare nurse will talk to the municipal homecare assessor about paying a visit to Birthe and Karlo. The nurse also says that Birthe does not have the energy to do her exercises. The therapist from the municipality suggests that they do the exercises at home instead of at a health centre.

- **Stability and instability**

The GP says that Birthe can quickly become too unstable to remain at home if her pain and heart treatment and her medication are not in place. This requires that Birthe has more equipment at home to help her and that Karlo accepts help from the municipality as well. It can all quickly become too stressful at home for Karlo who has also been working hard for the past couple of months and, just as Birthe's daughters say, he is not getting any younger.

Source: The case was constructed on the basis of an analysis of patients in a cross-sectoral video conversation, V4M.

The patient case Birthe shows that the V4M conversation thus provides a completely new setting and context for cross-sectoral collaboration and pathways. A virtual context that enables dialogue with and between several parties who have not previously had the opportunity to talk to one another. Not only does the information in this dialogue differ from the written documentation, it also includes several parties, including the patient's own voice and the concerns of family members. In addition, it creates feedback between practitioners, enabling them to adjust and circulate their current plans for the patient's rehabilitation, care, treatment and medication, thereby ensuring more proactive and preventive solutions.

2.4 Analysis 3: User evaluation of V4M

The 11 cross-sectoral video conversations between the four parties at the meeting were evaluated in terms of content and from the user's perspective. The content analytical evaluation of the video text material reflects the patients' active participation in the conversation about their pathway. Patients are asked the following question about the V4M conversations: *What is important for you?* The analysis examines whether the patients' answers to the question impact and set the agenda for the conversation between the four parties and why, how and why not? The content analysis not only provides an insight into the traditional "dia"-logue between *two* parties, for example the patient and the practitioner, but between many parties, that is, a "multi-logue" with many voices and formations of relationships between the four parties, as well as into the *dynamics* that create momentum in the conversation "across" the hospital, the general practice (GP), the municipality and the home.

Evaluation of the V4M conversations in a user perspective is based on qualitative interviews with patients 14-21 days after discharge with a view to hearing their experience of how the video conversation has impacted their return home after a stay in hospital and their subsequent pathway. The other three parties' experiences of the video meetings were obtained via email from the GP, interviews with the meeting leaders at the hospital and via a workshop with the action research group in which the hospital and both municipalities took part.

2.4.1 Content analysis of the patient perspective in V4M conversations

The following perspectives illustrate the patient's role and influence on the conversation during V4M:

- "The patient's voice" – an essential element for creating continuity in cross-sectoral care pathways is to involve the patient. However, the total amount of time the patients talk in the 11 completed V4M meetings is limited and is therefore a point for attention for the V4M meeting leader. The extension of the initial question: *What is important for you?* with the supplementary question: *What concerns do you and your family have?* – can contribute to shedding more light on the patient's perspective, including expectations regarding life at home before and after admission, and this perspective can form the basis for the continued conversation of the four parties.

- Conversational dynamics occur in the problems and alliances that emerge, and participants form various alliances across professional expertise and sectors. Alliances are formed on the basis of a problem presented by one of the parties and another party's possibility to contribute to the elaboration and/or solutions to the problem. V4M conversations are not conflict-free by default; on the contrary, in situations where the patient's family feel there has been little or no continuity in the patient's care, this may, for example, serve an opportunity to develop and renegotiate solutions together.

- Due to their visual form, dialogical encounters in the V4M conversation enable cross-sectoral and cross-disciplinary communication that would otherwise not have taken place. This visual contact adds a certain something that telephone conversations, written documentation and reading do not have, i.e. moments of recognition and wonder. A moment of recognition is when, for example, the patient sees their GP or family

members on the screen; such moments of recognition create more meaning in the group and strengthen their relationships. Recognition through the encounter creates a certain energy and motivation in the communication. The other participants are also each other's witnesses, and overall, this supports and creates a shared responsibility for finding solutions. A moment of wonder is, for example, the moment of realisation when one party says something about the patient's history or their own framework for contributing to treatment that surprises the other and creates an "understanding of the other party's understanding", that is, it enhances insight and understanding of each other's perspectives across sectors.

The following subsections elaborate on these qualitative aspects of V4M conversations with examples of their potential to support circular patient pathways and cross-sectoral collaboration.

2.4.1.1 Strengthening the patient's role in the conversation

Even though the objective of V4M is to give patients a stronger voice in the planning of their own pathway, the hospital context and the role as patient – which both traditionally render the patient passive – and the fact that the patient is weakened from disease, affect the patient's level of active engagement in the video conversation. Due to their age-related decline and serious health condition, only few of the patients actively voiced their own opinion in a traditional sense. However, this does not mean that the video conversation was not relevant or not important for the patients who were not active in the conversation. The most noticeable situation was a female patient who had refused to undergo an examination (keyhole surgery in the stomach) prior to the conversation. Throughout the video conversation, she keeps her back turned to the screen and all the other participants. But after the conversation, during which it was discussed whether her symptoms are physical or psychological, she changes her mind and consents to treatment. Even though she has turned her back to the computer, she can hear the four parties discuss her situation and needs; she regains her trust in them and is motivated to participate in the diagnostic evaluation and any suggested treatment.

Another patient trivialises the reason for being admitted to hospital and puts it down to knee pain; this triggers a reaction from the GP and the son. They both describe a massive loss of function in the patient over a very short period of time that should be included in the hospital physician's overall assessment and plan during admission. The supplementary descriptions by the general practitioner and the son create an entirely new understanding of context for the municipality and the hospital. They then develop a joint treatment plan based on the patient's loss of function and not only on his knee pain. The GP

also arranges to pay the patient a follow-up home visit together with the homecare nurse when the patient has been discharged from hospital.

The most independent patient in a classic autonomous sense insisted, against her family member's recommendation, on remaining in her home even though she has limited mobility and her home had many stairs. She called her family member a "traitor" because she felt that he sided with the municipality instead of with her. A crucial element in this V4M conversation was that the patient was offered a pathway and a treatment plan that accommodated her wish to stay in her own home, and her family member, despite remaining concerned, realised that the will and right to self-determination of this ill yet mentally alert woman were more important than her physical challenges.

Despite their differences, the ways in which these patients participate more or less directly in the V4M conversations confirm that the conversation is important to them, and it affects how committed they are in their own pathway. It also shows that various alliances are formed between the participants through which they position themselves and support each other's opinions and suggestions.

2.4.1.2 Dynamic alliances

Alliances are formed between the various participants. Even though the primary role of the family members is to represent the home and the patient's everyday life when not at hospital, alliances can shift as seen in the example above in which the patient accuses her family member of siding with the municipality instead of with her. There are also examples of family members who team up with their mother against the municipality, and where the GP acts as a mediator between the two parties by explaining that this is how the patient normally reacts to offers of help: "*She always says 'No thanks!' when asked if she needs help – even though she does*", and by sharing knowledge about the patient. The GP shares some tips on how the home carers can better predict changes in her health (habitual) condition: "*If you weigh her every day, a distinct weight increase will be a sign that she needs more diuretics, and if so, you're always welcome to contact me*" – and thereby also prevent (yet another) admission. He also recommends that the home carers note whether the patient only sleeps sitting up-right, and if she does, they must contact him as soon as possible: "*Because the patient can't lie down due to water in her lungs.*" Other alliances are seen between the GP and family members, for example, when the GP notices on the screen that the husband has become emotional; the GP knows that the husband is doing all that he can to look after his wife. In this case, the sympathy and acknowledgement from the GP is instrumental in the husband accepting that the municipality install a care bed in the couple's living room after all, so they can help care for her. This is a change in

their everyday life that has otherwise been difficult for the family to accept. The follow-up patient interview confirms that the life of the patient and the family changed for the better after the admission due to the V4M conversation.

Alliances are also formed between the GP and the cardiologist in yet another V4M conversation. In this case, the patient's pain treatment is very complex and requires the hospital physician's knowledge of the various treatment options and the GP's knowledge about what pain treatments he has already tested on the patient and the effect they have had. These alliances result in peer-to-peer knowledge-sharing between medical specialities aimed at this particular "complex patient". The treatment plan and responsibility for treatment are taken to a new level in these alliances, increasing the level of stability for patients who need "circular care".

Alliances are also formed between the patient and the municipality, for example, when a family member is concerned about their father and wants the municipality to move the parents into an assisted living facility closer to the family member's home. The municipal homecare assessor then explains that the parents themselves have to apply for this; implying that being admitted to hospital does not mean that you lose your right to make your own decisions about what you want. The hospital supports the municipality and the patient by reassuring the family member that, in their experience, a patient with the same medical history as their father will manage just fine at home. The municipality explains how they will help him when he returns to his home, and this helps the family members feel more at ease with the situation after discharge.

These alliances in which the parties support each other's perspectives as well as sympathise with the patient and family members and explain how they can be helped are very important and affects the participants at the end of the conversation. Not only the patients and their family member are reassured by this, the other parties in the V4M conversation are also reassured. For example, when

- the medical specialist explains to the municipality what they should keep an eye on to prevent an inappropriate admission leading up to the weekend

- the GP needs to share knowledge with the hospital physician in order to give the patient the best possible treatment in a difficult treatment situation

- the municipality and the GP tell each other and the hospital what they can – and cannot – do in their practice. Such alignment of expectations and reality saves everyone – the patient, the GP and the municipality – time,

because the patient is not discharged with a treatment plan that cannot be carried out in practice

- the hospital changes its medication treatment plan in response to the GP's comment that he has already tested the specific medication on the patient and that it had strong adverse effects.

In other words, the alliances create dynamics in the conversations and help form a cross-sectoral collaboration in which the participants complement one other for the benefit of the patient.

2.4.1.3 Video encounters and motivation to participate

The face-to-face encounter between humans is special. In ethical philosophy (Levinas, 1996, 2016), people are responsible to one-another in the face-to-face encounter. The openness and – in principle – unfathomable uniqueness found in the other's face is an invitation to understand the other as someone who is different, yet who has the power to transform who you are and who you can become (Wentzer, 2022). As such, a lot is at stake in the encounter between two faces. In our virtual meetings, faces are represented through the camera and are reproduced on the screen, face-to-face. Moreover, there are not just two faces, but four screens each showing one or several faces (up to three to four faces). In several of the 11 V4M conversations, there are up to eight participants who are located in one of the four domains or contexts: the patient's hospital room, the general practice consulting room, the context of the patient's family or the context of the municipal stakeholders. In one of the conversations, the homecare nurse participated from her car via her mobile phone. That is, many faces are present in the conversations, and these faces are physically separated from one another. In a few of the conversations, technical challenges meant that the participants could not see the patient because of poor internet connection in the patient's hospital room or could not hear what was being said because of audio issues. Sometimes it was also hard to hear what participants from the hospital context were saying – both patient and clinicians - if, for example, they were wearing a mask because of Covid. Despite these challenges, none of the participants gave up on the V4M conversations due to audio or video issues. They were *invested in* the conversation and the collaboration with and about the patient, even though this sometimes required extra focus from their part. In the analysis of the video images, it is apparent how powerful it is when, for example, the GP speaks directly to the patient and says: "*It's me, René, your doctor!*"– and the patient recognises the doctor's face and voice. The body in the hospital bed sits up as best it can and directs its gaze to the screen, nodding and smiling. It is obvious that the patient recognises their doctor, and hope and joy is reflected in the patient's eyes. This has a positive effect on the other participants, because they can

sense that the video meeting has made a difference, and that they in fact constitute a transient "virtual team" that can make an actual difference in the life of the frail, multimorbid patient. These fleeting encounters between human beings who recognise one another, not only create energy and motivation to participate in the conversation, they also tap into the different relationships between the participants. It is touching to see the moment a patient recognises a family member on screen. It creates energy, or even synergy, between the participants, because they see and feel that they are in this together. In the conversations between the medical specialists from different sectors, we also see moments where each physician not only gives to other but also gets something in return. In two instances, the municipal representatives make it clear when and how they can take the patient on board, and what is needed if the treatment is to be upheld after the patient has been discharged. Both the patient's general practitioner and the hospital catch on to this immediately and adapt the patient's medication and treatment plan to match the new setting. For example, what medication the patient will leave the hospital with, and how and when the patient's general practitioner will take over the responsibility for the patient's prescription medication. These video sequences of healthcare professionals who are seen and heard by other healthcare professionals have a constructive effect, not just because of the increased quality of and continuity in the patient's treatment as well as increased patient safety, but also because of the cohesive forces in the healthcare system. Thus, an analytical discovery from our qualitative analysis is that V4M conversations hold the potential to create resilience and motivation among healthcare professionals.

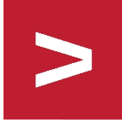
2.4.2 Effect of the V4M conversations as seen by the four parties

Box2.3 **Data and method**
Qualitative user interviews and reported information

Qualitative interviews, total: 41 and 7 forms with information

- Patient interviews: 9 at the hospital, 7 in the patient's home. Four patients died before the interview could be done in their own home
- Family members: 6 interviews, 2 of which were with family members to deceased patients
- Hospitals: 12 interviews, 5 of which were with physicians and 7 with nurses. Two of the interviewed nurses were V4M meeting leaders.
- Municipalities: 6 interviews, of which 2 were with municipal homecare assessors, 3 with homecare nurses and 1 with a physiotherapist.
- General practice through reported information: 7 returned, 1 oral report and 1 report via email.
- One focus-group interview via video with one general practitioner.

This section presents how the four parties involved in the V4M (the patient/family member(s), the hospital, the general practitioner and the municipality) assess the significance of their video meeting with regard to patient's future pathway. Box 2.4 provides an overview of all the data material. An example of a patient's pathway after being discharged from the hospital is presented overleaf. Birthe's case shows how the video meeting in which the four parties participate has a positive impact on her pathway and her return to her own home after a hospital admission. After the presentation of the case, a series of quotes from the four involved parties are used to demonstrate the core effect of the V4M conversations. The different voices of the involved parties and their assessments are examined further in the next four sections. Finally, the analysis is briefly summed up, and the respective roles of the involved parties are described. Special focus is given to the meeting leader's tasks regarding preparing the V4M, the interaction between the patient and their general practitioner and the municipality, the involved parties' use of documentation, and the varying length of the conversations.



Patient case “Birthe” and her co-habitant Karlo, after Birthe has been discharged

In Birthe’s case, both Birthe and her family felt that the V4M conversation was central to Karlo and Birthe agreeing to receive more help from the municipality in their own home. During the conversation, they felt that both the therapist from the municipality and their GP recognised Karlo’s efforts to take care of Birthe, and acknowledged that the couple need more help. During the interview that took place in Birthe and Karlo’s home, Karlo mentions that the GP’s surprise (during the video conversation) to reading in Birthe’s hospital records that she had COPD spurred the hospital to examine her. As a consequence of this diagnostic evaluation, upon her discharge, Birthe no longer needed the oxygen concentrator that had been installed in her home.

The following quotes from the interviews provide an insight into how the four V4M parties experience the effect of the conversation on the patient’s further pathway.

Patient/family member(s)

- *It makes us feel more confident, and it’s good to know that they discuss dad’s condition, but dad doesn’t really understand.*
- *All issues are addressed, things are happening, action.*
- *It was good that my GP participated in the meeting with the municipality and the people from the hospital.*

General practitioner

- *So convenient with a virtual meeting.*
- *It's good being involved already at the time of admission, it's a good opportunity to review the patient.*
- *It allows me to ask questions about the patient's treatment plan.*

Hospital: physician and nurse

- *Great to have a conversation, especially when the patient's GP takes part. It's good that we make a joint plan.*
- *My role isn't completely clear – I'm not sure what's expected of me.*

Municipality: therapist/homecare nurse/homecare assessor

- *It makes the patient feel more confident about their discharge and improves the quality of difficult and complex patient pathways.*
- *It's good to talk about any concerns. And inform the patient and their family about what we can do to help them.*

Effect of V4M as seen by the patient and their family

This part of the analysis is based on interviews with patients and their family member(s) immediately after the V4M while the patient is still in hospital and on interviews with the patients two to three weeks after their discharge in their own home. Some interviews with family members were conducted over the phone.

All the interviewed patients and their family members emphasise that they felt the V4M was conducted as a conversation in which everyone present was included. They mention that they thought it was good that everyone could see one another and that everyone was invited to contribute to the joint care and support plan. Especially the patient's family members express that they felt acknowledged and reassured about the stay in hospital and the upcoming discharge.

One family member mentions that he no longer feels the need to contact the municipality about his concerns about moving his 98-year-old father into a

temporary care home. He says: "*If we hadn't had this video meeting, I'd most likely be calling them constantly, but now I feel like everything has fallen into place, and that everything will be okay.*" Some of the other interviewees also mention that they feel it has made a difference; they feel that they have had an opportunity to talk about their problems and wishes and now new initiatives will be taken – that something is being done. Thus, the V4M meetings seem to strengthen the participants' commitment to following the joint care and support plan. One family member also mentions that his communication with his father's GP changed completely after he had participated in the V4M: "*It was kind of like we started somewhere else completely, because we both knew what had happened during [my father's] hospital admission and what dad's issues were*." Patients and their family often mention this – their GP's participation in the V4M – as a crucial factor with regard to securing a more holistic approach to their situation.

That is, they feel that they are heard, that their problems are addressed and that action is taken. This indicates a sense that if everyone gets involved, then things really *do* happen, precisely because everyone has been involved in the plan and "*looked each other in the eyes*," as one family member puts it.

Ensuring that the patient gets more help and is provided with any equipment they might need after their discharge is a key part of the regular discharge protocol. What makes V4M special is that it creates a situation in which family members are acknowledged – and given credit for – their efforts to help the patient, and this enables family members to accept that they need to say yes to more help if they are to achieve a stable situation when the patient returns home.

The interviewees also indicated that they thought it was quite okay for the physicians to use jargon when discussing the patient's medical case together, even though it is sometimes challenging for patients and their families to understand this jargon. The interviewees stressed that it was actually reassuring to know that the physicians were discussing the patient's problems. This shows that patients and their family members are reassured when they see and hear the medical professionals discussing their case as this means that they (the patient or their family member) are not responsible for relaying information from one professional or sector to another professional or sector. One family member mentioned that new knowledge had emerged about his father's kidney disease that had made him a bit anxious.

We find that family members are much more likely to be able to share their observations about what happened during the V4M than the patients themselves. Several of the patients are weakened due to their age and are still affected by their health condition. Thus, when interviewed, they were hard pushed to say more about how they had experienced the V4M other than that

it was nice to be able to see everyone and that they felt it was a safe space. Several family members also mention that the patient could not keep up with everything that was being said, but that after the V4M, they discussed what had been said with the hospital nurse. Based on these observations, we find that participating in the V4M helps family members be heard, and that when dealing with patients who are weakened by age, it is essential to involve their family. However, it is also clear that it is important to listen to the patient's wishes and thoughts when planning their pathway, and not just the concerns of their family. This points to the overall ethical issues at stake when a patient's family is involved in the patient's care and treatment, as many perspectives may be in play in such cases, for example, the patient's wishes or their family's fears and feelings of inadequacy at having to witness their loved one suffer from a potentially life-threatening condition.

Effect of V4M as seen by GPs

This part of the analysis is based on the registration forms filled in by the GPs, the focus-group interviews and the GPs' comments immediately after the V4M.

All the GPs thought it was positive for their patients to participate in the V4M. The virtual meeting is seen as a good supplement and provides greater insight into the patient's overall pathway. As one doctor puts it: "*It's good to get more information. I learn more here than I do during a short house call.*" The V4M is seen as a good opportunity to review the patient's situation and ask questions directed at the medical specialist about the patient's time in hospital and plans for the next steps: "*It's really valuable for me to be able to ask about the [patient's] treatment and especially about follow-up. I don't normally get to do that*." They also find it beneficial to have cross-disciplinary discussions about the patient's case, and it is valuable for the collaboration across the primary and secondary sectors to communicate directly with one another already during the patient's hospital admission. As one doctor phrases it: *I think it [V4M] results in a better pathway for the patient."* Another doctor remarks that it is very rewarding to be a part of an initiative that helps the patient.

It is clear that the general practitioners see the V4M as a forum that affects the way they understand one another – and not least share knowledge – across sectors. Not only does it provide them with the opportunity to share their experiences and knowledge about the patient's overall situation, it also provides them with the opportunity to ask questions and provide input on the patient's current treatment and subsequent pathway.

Effect of V4M as seen by hospital stakeholders

This part of the analysis is based on interviews, registration forms and evaluation meetings.

- Hospital physicians

The hospital physicians find that V4M is a good forum for discussing the patient's pathway. They especially emphasise how important it is that the patient's general practitioner participates in the V4M. As one hospital physician says, what is really important is that the patient's GP has the opportunity to ask questions about the treatment: "*The questions the GP asks, well, he can't pose them to the discharge summary*." The hospital physicians also think it is important that a medical specialist participates in the V4M – or at least a physician who has treated the patient and knows their case. It should not be a junior physician or a doctor in training. They explicitly state that the ideal situation is if the doctor participating in the V4M is the same doctor who attended the patient during rounds the day before.

- Nurses

The nurses emphasise that several important issues are dealt with at the V4M, for example, the patient's medication or treatment plan are revised. For example, a patient's hospital admission might be extended to ensure the patient's diuretic treatment is correct, thereby ensuring a more smooth return to the home. At the meeting, the parties discuss the joint support and care plan, and the municipality presents how much assistance they can offer, and whether it is realistic that the patient can return directly to their own home. Even though the issues discussed are also addressed in the written treatment plan, the V4M conversation provides the nurse with the opportunity to emphasise the areas that are especially important for the patient; this is sometimes difficult to communicate in writing. In a sense, the V4M conversations cover all the loose ends: it is not always clear who will do what, and not least, what is possible in the other sector.

- Therapists

The two therapists who participated in the V4M reported that it was helpful, and that it spurred them to adjust the patient's rehabilitation plan that the hospital forwards to the municipality.

- Video meeting leaders

The video meeting leader is present in the same room as the patient to ensure that the patient is heard and that the V4M conversation revolves around the patient's situation. During the V4M trials, the role of meeting leader was designated to three nurses who work with patient involvement. In the subsequent interviews, two of the video meeting leaders concluded that their cross-sectoral experience – as a homecare nurse in the municipal care services and as a

nurse at either a cardiology or geriatric department – provided them with important and essential competencies for selecting patients for the V4M trials, for ensuring the patient and their family were involved, and for making agreements with the other parties that are to participate in the meeting. The video meeting leaders also emphasise that in addition to their time management task, another important aspect of their role is to include or relay the outcome of their conversation with the patient about their wishes, including summing up the agreements made and coordinating the joint care and support plan both orally and in writing. This shows just how important it is that the video meeting leader is familiar with the cross-sectoral collaboration.

- Video – technical aspects

The video meeting leaders also mention the stress they feel when the technology behind the meetings fails. This indicates how crucial it is that the technology is in place and that facilitating the conversation is sometimes challenging. Once again, this shows how important it is that everyone knows who is responsible for what.

Effect of V4M as seen by municipal stakeholders

This part of the analysis is based on interviews and assessment meetings with the municipal V4M stakeholders: therapists, homecare nurses and the homecare assessor.

All the municipal stakeholders find that the V4M format provides a platform for discussing especially complex and challenging patient pathways. The patient's treatment can be geared to their needs, for example Birthe's rehabilitation programme is moved from the health centre to her home. They also mention how sharing knowledge across sectors and involving all the different stakeholders in drawing up a joint care and support plan leads to better discharge conditions. The therapist remarks:

> *It's hard to say precisely what the outcomes are, but I definitely sense better quality. It's also as if Birthe has become more conscious of taking charge of her pathway.*

The municipal homecare assessor mentions that being part of the V4M provided a clearer picture of what needs and wishes the patient and their family had to the patient's stay in hospital and to their return to their home. They also mention that the patient's family get to hear more about the services the municipality can offer. The homecare nurse emphasises that it is important that the technology works, and that the V4M does not take place too close to the patient's discharge to allow for time to make the practical arrangements. The

municipal stakeholders seem appreciative of the GP' participation in the V4M and that a care and support plan is prepared together at the meeting.

Overall assessment

In summary, our analysis shows that the four parties who participate in the V4M think that this approach leads to better planning of the patient pathway.

However, the hospital physicians, nurses and municipal homecare nurses still need more clarity regarding what is expected of them and their role in the V4M. This indicates that it is important to ensure all stakeholder receive the relevant training and clear instructions.

In four of the V4Ms, a follow-up home visit is agreed. Even though we have no way of knowing whether the hospital physician would have noted this in the discharge summary, we note that in three of these cases, the patient's GP is responsible for suggesting the follow-up home visit. This indicates that the GPs think that follow-up home visits are a good idea. Such a visit makes it possible to follow up on the joint care and support plan that was agreed at the V4M.

Coordinating and adjusting a patient's medication is central to ensuring the patient's safety. When, spurred by the V4M, the homecare nurse and GP coordinate that they will follow up on a patient's diuretic treatment by the nurse monitoring the patient's weight and reporting this to the GP, this shows a heightened awareness of the agreements made regarding the patient's ongoing treatment.

V4M makes it possible to involve patients and their families: their challenges and concerns are heard, and they are invited to contribute to the development of the joint care and support plan.

A joint care and support plan is agreed covering examinations, treatment, medication and exercises.

There were technical glitches during several of the V4Ms, especially with the sound. Sometimes the participants on screen could not hear what the participants in the hospital room were saying, and sometimes especially the patient could not hear what the participants on the screen were saying. There were also internet connection issues at the hospital. In several of the meetings, the participants had to rely on their mobile phones, because of the poor internet connection. This shows how important a reliable internet connection is for ensuring a smooth V4M. Having said that, it was remarkable how dedicated all the participants were with regard to going through with the meeting despite experiencing video and audio issues. No one gave up.

2.4.2.1 Summary, time and documentation

It is clear that, during the V4M, the parties negotiate treatment plans, the diagnostic process and what will happen once the patient has been discharged. Adjusting the patient's medication helps ensure the patient's safety when the GP is involved:

> *But we've tried that medication before, and it didn't have a good effect on Viggo.*

It also leads to a new diagnostic evaluation of, for example, Birthe's lungs that results in a much better care and support plan for her and Karlo when she returns home. Birthe's rehabilitation plan is also changed because the physiotherapist from the municipality points out that Birthe will not be able to follow the hospitals standard rehabilitation plan because she is too weak to do the exercises at home.

Thus, we see that V4M seems to open up for dialogue about the patient pathway, even though some aspects of the meeting setup were not perfect. First of all, the underlying technology must run smoothly. It is also important that the person facilitating the V4M is a skilled user of the technology and that the video meeting leader's skills and role are clearly defined. Finally, all four parties must prioritise allocating time to participate in the meeting.

Time and organisation

The video meeting leader needs approximately 2-3 hours to plan the meeting. This includes contacting the patient and their family, and participants from the hospital, municipality and the general practitioner. It was particularly challenging to establish contact to municipal stakeholders who were familiar with the patient's case. Contact to the GP was established with the help of their secretary/nurse.

On average, the actual V4M meeting lasts approximately 25 minutes. The shortest meeting lasted 16 minutes and the longest lasted 33 minutes. The general practitioner's participation was covered by our project funding, but the new collective agreement includes a rate that allows for the patient's GP to be included in this type of coordination. We assess that the resources required for a V4M are similar to resources allocated to the meeting the hospital physician has with the patient's family at the hospital, and it requires coordination by phone between the municipal homecare nurse, homecare assessor and the hospital nurse.

Documentation

The instruction was to provide documentation of the entire V4M pathway in the patient's medical record. This was done in six cases; in one case, documentation was provided in the discharge summary. Moreover, the nurse was to enter documentation into the "correspondence module" in the Healthcare IT Platform EPIC used in the hospital – this was done in two cases – and subsequently provide the patient with a printout of the plan. This shows how unclear the instruction regarding documentation of V4M is and that this instruction needs to be made clearer, just as it must be made more clear who is responsible for the different types of documentation.

2.5 Analysis 4: The leader's role in V4M

Box 2.4 **Data and method**
User roles in virtual 4-party meetings

- Two qualitative interviews with two nurses who were responsible for organising and running the video conversations
- Analysis of the transcribed audio and video material from 11 V4Ms with particular focus on audio and video quality, user interaction, communication patterns and the role of the meeting leader
- Evaluation of the user experience in workshops 2 and 5.

It is a well-known fact that new technologies do not automatically become implemented in an organisation; they rely on "technology agents", who adopt the technology and "spread" them into the organisation. It is also well known that the use and spread of a technology depend on the competences in the organisation as well as how well it can be integrated into the culture of the organisation. When technologies are used in practice, the users' interactions and relationships are assigned roles as is their collaboration with the technology (Barley, 2020). The two meeting leaders are co-researchers in the action research group, and in the context of V4M they are technology agents. Testing how using video works by introducing it into 11 patient pathways has provided insight into the competences users need to master the technology and into the organisational framework that needs to be in place. The following two analyses provide insight into organisational setup and competences required for 1) organising video meetings between key stakeholders in a patient's case and for

2) ensuring extended coordination between the participants with a view to creating a coherent cross-sectoral patient pathway. The first analysis describes the key role of the meeting leader with regard to setting up the meeting, running it and documenting the joint care and support plan agreed for the patient. The next analysis focuses on the role of each of the four parties in the virtual meeting, the V4M. Moreover, focus is also on facilitating a dialogue that includes not just two parties, but four parties.

2.5.1 V4M meeting leader – competence profile and tasks

The V4M meeting leader has a special role with regard to conducting cross-sectoral video meetings. The meeting leader acts as a liaison between the patient and their family and the hospital clinicians participating in the V4M. She also contacts the patient's general practitioner and their municipality of residence (who may already know the patient from the municipal homecare system). The aim is to set up a cross-sectoral and cross-disciplinary team that reflects the patient's medical history and current treatment needs. These two primary tasks require that the V4M meeting leader is familiar with both municipal health services and hospital services; that is, the meeting leader must be familiar with both the challenges older individuals face in their everyday lives and the approach to treatment in modern hospitals where focus is on system efficiency.

In the project phase, the V4M meeting leader selected patients for the video meeting on the basis of a set of criteria established by the action research group. This "handpicking of patients" also requires the V4M meeting leader is familiar with both cardio and geriatric patients and knows the hospital wards that took part in the project well. One of the outcomes of the project is to establish more general criteria for offering older patients cross-sectoral video meetings. Annex 1 is a patient information letter that explains what the meeting is about and how the patient and their family member(s) can best prepare so as to benefit from the dialogue with the three other parties participating in the meeting.

Preparing for cross-sectoral video meetings requires specific competences. The V4M meeting leader has four key tasks that are described in detail below:

1. selecting and including the patient and obtaining their consent
2. planning the video meeting and inviting participants from the hospital, the municipality, general practice and the patient's family member(s)
3. managing the video conversation technically and content-wise
4. ensuring documentation of the joint cross-sectoral care and support plan.

The role of the meeting leader is key to planning who gets to speak when, timing and structure.

Plenary discussion,
homecare nurse

Selecting patients

Patients were selected by the V4M meeting leader based on the inclusion criteria mentioned in the above in collaboration with a hospital physician and nurse. In the subsequent interviews, the nurses reflected on their considerations in connection with selecting the patients. They stressed that they often selected patients receiving complex treatment and who would continue to need aftercare and follow-up after discharge from the hospital. They also took the patient's domestic situation into consideration, that is, whether the patient would need more support after being discharged that required extended coordination with the municipal homecare assessor and other municipal stakeholders. Finally, they also considered the needs of the patient's family and how to include them in the process.

Preparing for V4M tasks

The V4M meeting leader has several tasks when preparing a virtual, cross-sectoral meeting:

- Ensuring the patient is heard: *'What is important for you, and what concerns do you and your family have?'*

Older patients who meet the criteria for referral are informed about the purpose of the cross-sectoral video meeting, namely, to ensure provision of well-

planned and joined-up care both during the patient's stay in hospital and after they are discharged and to base decisions on the patient's wishes and preferences. The patient information letter (Annex 1) targets both the patient and their family member(s). If the patient consents, the V4M meeting leader will ask the patient "*What is important for you?*" to better understand the patient's expectations, concerns and hopes. The role of meeting leader includes ensuring that the patient's perspective is heard; if the patient's voice is weak, the meeting leader is responsible for representing the patient's perspective.

- Contacting the four V4M parties

The V4M meeting leader is tasked with coordinating a video meeting between the hospital department, the patient's general practitioner, municipal stakeholders and the patient's family. The meeting leader must ensure this meeting is held within two days after the patient has given their consent. Sometimes the meeting leader visits the hospital department in question and asks to speak to the patient's physician and other specialist groups who are relevant for the patient's future treatment and care. The meeting leader may choose to contact the patient's family, their GP and the municipal stakeholders by calling them on the phone. When participants have consented to the meeting, the meeting leader sends a joint email and calendar invite to the participants (Annex 2) that includes the date, time and link to the meeting.

- Joint email to participants with link

Annex 2 shows a template for the email that has was prepared in connection with testing the V4M manual. The email is structured so that it is clear who the meeting is about, namely the patient. Next, the names of the other participants are listed in the following order: stakeholders from the hospital and municipality, the patient's GP and any family members representing the patient, including who they are, e.g. son, daughter or grandchild. The template provides all participants with an overview of who will be participating in the meeting, and what their role is in relation to the patient. The email also briefly outlines how long the meeting lasts and encourages everyone to maintain a respectful tone. Finally, the email includes an encrypted link to the virtual meeting. The technical solution, VDX, is delivered by MedCom to all regions/Hospital owners in Denmark, and all users with a mobile phone, computer or tablet can activate the link via their browser and thereby take part in the conversation.

- Preparing the video set-up in the patient's room at the hospital

Before the meeting, check audio and video are working and set up the patient's room. Check the network connection, sound and lighting. Check that all the participants will be able to see one another.

Tasks during the V4M meeting

The meeting leader must also possess good moderator skills in order to ensure that everyone is introduced and heard during the V4M meeting. Communication does not have to be conflict free to be good; however, good communication requires interest in the other's perspectives and a constructive approach to creating solutions together. The following instructions or special focus areas can help the meeting leader bring about relevant perspectives and sum these perspectives up in a joint care and support plan.

- Technical aspects and introductions: 3-5 minutes:

  - Begin by checking that everyone can hear and see one another. If there are any noise disturbances in the background, ask participants to mute their microphone when they are not talking.
  - Welcome everyone and introduce yourself and the patient. A friendly yet professional tone helps set the stage for a respectful conversation. Remind the participants of the timeframe for the meeting (30 minutes). Let

Link to video meeting sent via email

Excerpt from email with information for the participants

"You are invited to participate in a virtual meeting hosted by NN, date, time (the host will let you in 15 minutes before the meeting begins).

If you log on from a PC or an android phone/tablet, use either Chrome or Edge; if you log on from a Mac or iPhone/iPad, use Safari. If you log on from a computer, it's a good idea to copy the link into your browser instead of simply clicking on it as Chrome/Edge/Safari may not be your standard browser. If you log on from a mobile phone/tablet, just click on the link below.

Computer: Copy the link below into your browser to start the meeting.
Mobile phone/tablet: Click on the link below to start the meeting:
https://portal.vconf.dk/XXXX

If you use a client to host virtual meetings, e.g. Polycom, Jabber or Skype for Business, copy the meeting room address into the client you are using.
Meeting room address: XXXX@video.regsj.dk
Enter the following guest password: **XXXXX**

Note: Excerpt from email template - invitation to participate in the V4M.
Video link is based on MedCom's VDX solution used in Region Zealand

Source: Action research project, Region Zealand & VIVE for cross-sectoral pathways.

any participating family members know that they can ask follow-up questions after the meeting (phone call).
  - Ask the participants on the screen and in the patient's room to introduce themselves so everyone knows who is who. It may difficult to tell the difference between, e.g. the patient's GP and the homecare nurse or daughter, and it may lead to confusion if the participants do not mention who they are and what their role is.
- Moderation of conversation. Begin with the patient's perspective, then move on to the perspective of the hospital and the other participants until everyone has presented their perspective and questions to each other, 15-20 minutes:
  - Include the patient in the conversation, sum up what the patient has told you about their wishes and preferences
  - The hospital physician then sums up why the patient is in hospital
  - If the patient's family, the GP or the municipal stakeholders do not comment on what the hospital physician says, the meeting leader invites them to share their concerns and perspectives.
- Rounding off and documentation, 5 minutes:
  - Make sure to allow time to briefly sum up what has been said, what has been decided and which tasks are to be documented in the patient's medical record and in the nurse's documentation tool. This also includes which aspects of the care and support plan that are to be documented. Make a printout of the summary for the patient.
  - End the meeting. Remove any meeting equipment from the patient's room.
  - The meeting leader has a follow-up conversation with the patient to clear up any uncertainties they may have.

2.6 Analysis 5: The four parties and their role in V4M

Box 2.5 **Data and method**
User roles in virtual 4-party meetings

- Analysis of the audio and video material from 11 V4Ms with particular focus on audio and video quality, user interaction and communication patterns.

Roles: hospital, municipality, general practice and 'home' as represented by the patient and their family member(s)

The four parties – hospital, municipality, general practice (GP) and the patient's family member(s) – all play an important role in the virtual meeting with the older hospital patient. They each have useful knowledge about the patient's case either due to their professional background or to their relation to the patient. Over the course of the virtual meeting, their different and often "fragmented" perspectives on the patient's pathway add up to a more holistic understanding of the patient's situation, needs and options. The patient's family represent the patient's life at home as they are often very familiar with the patient's daily life and home environment. The municipal healthcare professionals are also very familiar with the conditions of the patient's everyday life. The patient's GP is usually very familiar with the patient's medical history and family situation. The hospital has the specialist knowledge to examine the patient and initiate treatments. Together these four parties make up a 'virtual healthcare team' with extended complementary competences and knowledge that they draw on to coordinate and prepare a joint cross-sectoral care and support plan for complex patients.

Invitation to the V4M via email

Excerpt from email template - invitation to all participants with link and instructions on video meeting etiquette

Dear participant,

You are invited to join a video meeting with nurse NN and medical specialist NN.

Date and time:

Link to the video meeting can be found at the end of this mail.

At the meeting we will discuss expectations regarding the patient's hospital stay and discharge, and we will make a joint care and support plan for the patient's subsequent treatment. The following are invited to the meeting:

Family member(s): NN

Hospital: NN, nurse and meeting leader; NN, patient; and NN, geriatric medical specialist

Municipality: NN, homecare nurse from the department of elderly care and home care; NN from the care centre

General practice: NN, general practitioner, town/municipality

Agenda and objective: At the meeting, the four parties represented will present their thoughts regarding the patient's admission. The objective of the meeting is to ensure a joint approach to, and a shared responsibility for, the patient's care and treatment. The hospital will forward the patient's care and treatment plan to all the involved parties.
A brief description of the video meeting – also referred to as the V4M manual - is attached to this email.

Your role: Please be prepared to briefly present (2-4 minutes) your thoughts and questions about the patient's stay in hospital. Include any information about the patient that you think is relevant for the other parties. See the attached question guide for inspiration. The meeting is scheduled to last no more than 30 minutes.

Good video meeting etiquette: Keep a polite and civil tone. If you need to address additional aspects about the patient's treatment pathway, you can discuss these with the meeting leader (who sent this mail) over the phone. Make sure to be in a room where privacy can be ensured.

Note: The text in full in English is provided in Annex 2, which can be copied and used together with the V4M manual.

The meeting leader (from the hospital) fills in the template, sends it to the participants and sets up the virtual meeting.

Source: Developed and tested by the action research group in connection with invitation to 11 V4Ms, in total approx. 80 email addresses and individuals.

Similar to the meeting leader, the four parties are also responsible for preparing for the meeting, contributing to the meeting and documenting the meeting.

The next four subsections describe in more detail what is expected and required of the different V4M participants: healthcare professionals at the hospital, from the municipality and from the patient's general practice as well as the patient's family member(s). The four sections are structured in the same way – before, during and after the V4M meeting – and outline how each party can best prepare for the meeting, contribute to the conversation and subsequently document the joint care and support plan.

What is most important for you? What concerns do you and your family have?

The patient perspective
Preparing for the V4M meeting

2.6.1 Hospital: Expectations to the physician, nurse and therapist(s) in regard to V4M

Several hospital staff participate in the video meeting. They join the patient in the patient's room. This could be the attending physician, who may participate in the V4M as part of their rounds with the patient or in connection with a meeting with the patient's family. A nurse or another healthcare professional who is familiar with the patient's situation asks the patient questions about what they think is important to address at the meeting and sometimes also asks questions about which health problems need to be addressed.

Prior to the meeting

Participants receive an email inviting them to the meeting. The email includes information about the patient, when the meeting will be held, the names and roles of the other participants. The mail also outlines the objective and the conditions of the meeting. Prior to the meeting, the participants have a duty to prepare the patient for what will be addressed at the meeting and to get to know what the patient's wishes and concerns are.

Moreover, the hospital staff prepare for the virtual meeting and their role by considering the following questions:

- What questions do you have for the patient's family, the municipality and the patient's general practitioner?
- What kind of problems have there been during the patient's admission?

- What is particularly important to be aware of at the time of the patient's discharge?
- What should the patient's general practitioner and the municipality be particularly aware of after the patient has been discharged?

- **During the meeting**

  - Present your patient notes, the patient's status and any particular challenges. Share your knowledge and assessment.
  - Video meeting etiquette: Show respect for each other's professional expertise. Protect the patient's privacy by ensuring that all participants on the screen are in a private room and can speak freely. If the patient's family have additional questions, they can call the V4M meeting leader after the meeting or contact the clinicians using their regular modes of contact.

- **After the meeting:**

  - Document the plan and agreements made in the patient's electronic medical record. This information should be copied into the discharge summary and forwarded to the patient's GP. The patient and their family are provided with a printout of the summary of the meeting.

The questions listed above about the how to prepare for and conduct the video meeting allow the hospital clinicians to reflect and draw on the information provided by other the three parties into their hospital context. This increases the hospital's understanding of what care and support the municipality and the patient's general practitioner can provide as well as of the reality of the patient's everyday life at home.

2.6.2 Municipality: Expectations to the healthcare professional(s) in regard to V4M

- **Prior to the meeting**

It is a good idea if the healthcare professionals from the patient's home municipality consider the following before the V4M:

- What information about the patient's everyday life is important to share with the patient's family, the GP and the hospital?
- What are your concerns about the patient's/family's situation?
- What would you like to know about the patient's admission?
- What do you need to know about the patient's discharge?
- What in your opinion must be done to avoid early readmission of the patient?

- What is important to include in a good care and support plan?

- **During the meeting**

At the meeting, the municipal stakeholders share their knowledge and thoughts about the patient's situation to ensure, for example, a realistic and appropriate discharge plan in relation to what the municipality can offer and collaboration with the patient's general practitioner and family.

- **After the meeting:**

After the meeting, agreements and documentation must be followed up.

2.6.3 General practice: Expectations to the patient's GP in regard to V4M

Before the V4M, the GP is expected to have prepared a status of the patient's course of treatment in general practice. It is a good idea if the patient's GP considers the following:

- What is particularly important for the hospital to be aware of about the patient and the family's situation?
- What are your concerns about the patient's/family's situation?
- What do you need to know in connection with the patient's discharge?
- What do the hospital and the other parties need to know to ensure follow-up and further treatment?
- Are follow-up home visits necessary?

During the meeting, the GP is expected to share knowledge and thoughts about the patient's pathway. After the meeting, agreements are followed up, including ensuring that any agreed follow-up home visits are planned with the patient and the municipality.

2.6.4 Home: Expectations to the patient and their family in regard to V4M

- **Prior to the meeting**

It is a good idea if the patient and their family think about the following questions prior to the meeting:

- What has affected your health in the period leading up to your hospital admission?
- What is most important for you during your time in hospital and when you are discharged?
- What concerns do you and your family have?
- What would be a good plan for you?
- What concerns do you have about your discharge, and what are your hopes for your daily life at home?
- What can help prevent your readmission?
- How can your family help you?
- How can you benefit from the help provided by volunteers and the municipality?

During the meeting

During the meeting, the patient and their family member(s) have the opportunity to voice their concerns and ask questions within the allotted timeframe.

After the meeting

After the meeting, the patient and their family can read the agreed care and support plan in the patient's electronic medical record. The patient also receives a printout of the plan.

3 Conclusion

Multimorbid and frail patients with frequent admissions and discharges shift between the primary and secondary care systems. This requires coordinated efforts between the sectors that go beyond the usual written documentation and standardised coordination. The experiment where video meetings were held between the four parties – the hospitalised patient, the municipality, the patient's family and general practitioner, V4M – shows that the four parties can work together to draw up a joint cross-sectoral care and support plan for the 'unstable patient'.

What characterises V4M patients?

Older hospitalised patients often comprise an unstable patient group whose treatment and care requires the extended coordination provided by the V4Ms. The characteristics of this group include:

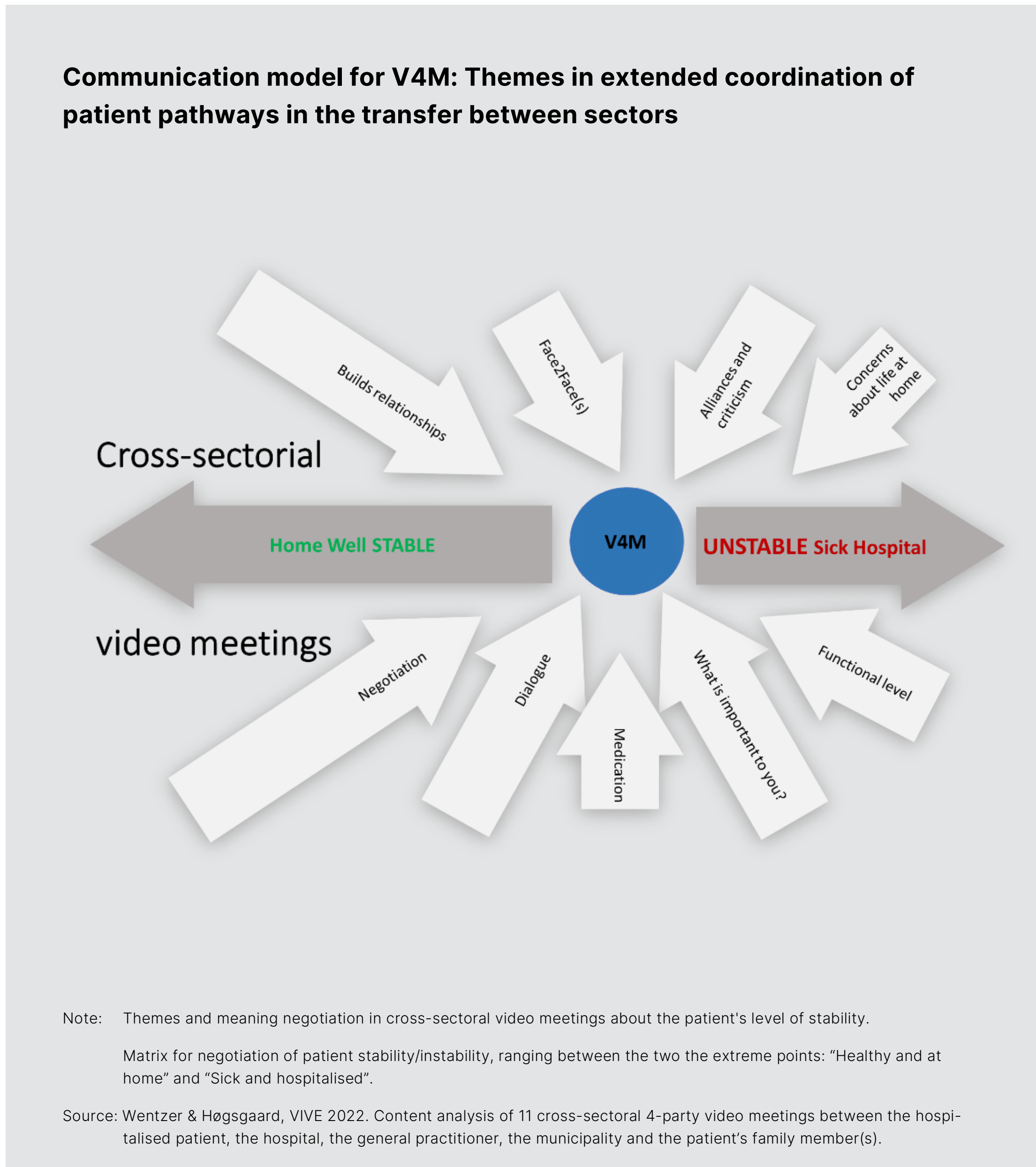
- the need for complex care and treatment
- the need for more help after discharge
- frustrated family members
- repeated readmissions
- a new rehabilitation situation
- significantly reduced functional capacity
- continued need for treatment after discharge
- a desire for follow up after discharge
- living alone and having little or no network.

That is, this unstable patient group comprises a small group of hospitalised older patients with cross-sectoral pathways. The circularity of such pathways, including the stability of the patient's health, can be improved through V4M.

Negotiating and coordinating across sectors in V4M

The extended coordinated plan for the patient includes adjusting key (re)admission parameters, such as when the patient is discharged, municipal care and support after discharge, follow-up home visits by the GP, the patient's treatment plan, medication, rehabilitation plan, disability equipment and home care. The plan is the result of the negotiation between the four parties concerning the patient's stability/instability, which is assessed based on 10 themes.

Communication model for V4M: Themes in extended coordination of patient pathways in the transfer between sectors



Note: Themes and meaning negotiation in cross-sectoral video meetings about the patient's level of stability.

Matrix for negotiation of patient stability/instability, ranging between the two the extreme points: “Healthy and at home” and “Sick and hospitalised”.

Source: Wentzer & Høgsgaard, VIVE 2022. Content analysis of 11 cross-sectoral 4-party video meetings between the hospitalised patient, the hospital, the general practitioner, the municipality and the patient’s family member(s).

The model shows how the V4M conversation opens up for extended coordination: the four parties make a *plan* together that takes into account the many aspects of the multimorbid older patient’s treatment and life at home. In the

course of the conversations, knowledge is negotiated, and the patient's degree of health stability is discussed. That is, how stable the patient's condition must be to allow the patient to remain in their home, and who is responsible for what. The video set-up creates a virtual "cross-sectoral space" in which the four parties are can be together despite not being in the same physical location nor belonging to the same organisation, and with each their own understanding of the patient's pathway. The fact that they can see and recognise each other's faces serves as a cohesive force and triggers dialogue between them. It makes all the difference for the patient when a family member participates in the meeting, and when the video meeting leader supports the patient's perspective. Moreover, the GP contributes with important knowledge about the patient and their medical history in the peer-to-peer conversation with the hospital, just as the municipality contributes with knowledge about what is possible when the patient returns to their own home and everyday life.

3.1 Results

This report presents a detailed description of how V4M meetings between patients, their family member(s) and healthcare professionals from the various sectors can be conducted. The five analyses comprise

1. the content produced from 11 video conversations between the four parties
2. the four parties' perception of how the conversation shapes the patient's future pathway
3. patient characteristics for participating in cross-sectoral video meetings
4. the role and tasks of the meeting leader with regard to planning and conducting the video meetings
5. expectations concerning the role of each of the four parties in the video conversation.

The analyses illustrate and answer the research question about improving cross-sectoral collaboration, namely: *How can video meetings contribute to a circular understanding of citizen pathways across sectors?*

The results of the analyses indicate that video meetings increase patient safety and contribute to extended coordination and a circular understanding by

1. creating a virtual space for cross-sectoral conversations, in which the parties can see one another and profit from each other's specific knowledge in a joint care and support plan
2. establishing a joint care and support plan that shapes the patient's pathway and helps reassure the patient with regard to their discharge and collaboration across the various stakeholders in the primary sector, for example when adjustments are needed to the patient's treatment, medication, rehabilitation plan, disability equipment, home help and agreements about home visits by the general practitioner
3. actively including both the patient and their family when prioritising treatments and planning.

Thus, the results indicate that the video meetings can lead to greater continuity of care across sectors; however, this requires that the appropriate resources, competences and information are made available.

Communication products for V4M

Three communication products are appended to the project (Annexes 1-3) as support for cross-sectoral video meetings:

- Information letter to the patient to take part in a cross-sectoral video meeting that centres on their needs and concerns

- Email template for the virtual meeting between the hospital, municipality, the GP and the patient and their family, V4M

- Manual for how to conduct V4Ms, which includes a description of the role of the meeting leader and the four parties who participate in the conversation.

These three products can be downloaded from VIVE.dk, printed and attached to the email that the meeting leader sends to the four parties to support the cross-sectoral pathways of unstable older individuals in the future. The manual is laid out to fit an A5-size format so that it is easy to use on the go and thus provides support for the meeting leader and the four user groups when preparing for and conducting cross-sectoral video meetings with each other.

3.2 Perspectives

The results of the analysis derive from 11 trials. This means that more trials are needed to be able to present a more general assessment of the impact of V4Ms on the pathways of older patients, for example the number of follow-up home visits, prevention of preventable readmissions and the health economic effects of creating a more stable pathway for multimorbid older individuals. Such an upscaling of the number of V4Ms would require a different case design that includes patients from several hospitals and municipalities, and of course also more general practitioners and family members. This would provide a new data basis that can be used in monitoring research with a view to obtaining more knowledge about:

- the impact of cross-disciplinary video conversations between the parties on quality, knowledge sharing and the dismantling of silos
- an effective, inter-organisational correlation between booking V4Ms and the practices and organisational procedures of the respective partners
- the effect of cross-disciplinary health initiatives for complex pathways.

Special focus areas and recommendations

There are also a number of special focus areas to be aware of when upscaling and disseminating V4M as part of the extended coordination for unstable patients.

- Additional patient characteristics

All patients who took part in the experiment had family and spoke Danish. We recommend that V4M is tested both on patients with no family and on patients with an ethnic minority background, including patients who do not speak Danish. Patients with no family do not have the same social and communicative capacity to articulate what their concerns are and what is important for their everyday lives (Martin, 2018; Wentzer, 2020b). Older people with an ethnic minority background constitute a growing percentage of the older population. Both of these patient characteristics play a significant role in preventing social inequality in V4Ms.

- Competences of the meeting leader

We recommend that a number of designated healthcare staff receive training in how to conduct V4M conversations. Such training should include how to select older individuals with the described patient profile, as well as how to set up and use video equipment and moderate 4-party meetings. The attached annexes can also be used as the foundation for an online course aimed at upgrading such skills.

- Quality of the video technology

We recommend that the video technology in the patient's hospital room is developed to match users who may have age-related hearing and vision loss, and it should take into account that users may be wearing protective equipment such as face masks or other hospital equipment.

- Efficient booking

We recommend that once the patient has agreed to participate in a V4M, they receive an invitation to the V4M within two days. Established procedures for planning V4Ms between the hospital and the municipalities receiving the patient and maybe also general practice can help ensure efficient scheduling of meetings for all parties. We also recommended that within the hospital itself, all relevant departments coordinate their respective roles and responsibilities.

- Documenting the joint care and support plan

Based on an evaluation workshop about the 11 trials, the monitoring research group recommends developing a documentation tool and documentation practices for the four parties, including ensuring that the patient and their family member(s) have access to the agreement.

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Annex 1 Patient information letter V4M

Patient information

We invite you to join a **video meeting** where we will discuss your health and what is most important for you right now. Together we will agree on a care and support plan for you, including what will happen after you are discharged from the hospital.

You will participate from your room in the hospital. We encourage you to ask a family member or close friend to participate as well. The physician responsible for your treatment at the hospital and your regular nursing team will also be present, as will any other relevant health professionals. You will be able to see and talk to representatives from the municipality, e.g. your homecare nurse, therapist or the municipal homecare assessor, on a video screen.

The designated meeting leader will contact you before the video meeting. Her job is to ensure that your wishes are heard and that the healthcare professionals address all the matters they need to with you and with one another.

The meeting is scheduled to last no more than 30 minutes. Your **family member(s)** can also participate online if that is more convenient for them.

Prior to the meeting, you and your family should **think** about the following:

- What has affected your health in the period leading up to your hospital admission?
- What is most important for you during your time in hospital and when you are discharged?
- What concerns do you and your family have?
- What would be a good plan for you?
- What concerns do you have about your discharge, and what are your hopes for your daily life at home?
- What can help prevent your readmission?
- How can your family help you?
- How can you benefit from the help provided by volunteers and the municipality?

After the meeting, the physician will write a memo that is entered into your medical record and forwarded to your general practitioner upon your discharge. The hospital nurse will write a memo that outlines any agreements that were made as well as your care and support plan and will forward this memo to the municipality. You will receive a print of this memo.

If you have any questions, please contact ________________.

Annex 2 Template for invitation letter to meeting

Dear participant

You are invited to join a video meeting with nurse NN and medical specialist NN.

Date and time:

Link to the video meeting can be found at the end of this mail.

At the meeting we will discuss expectations regarding the patient's hospital stay and discharge, and we will make a joint care and support plan for the patient's subsequent treatment. The following are invited to the meeting:

Family member(s): NN

Hospital: NN, nurse and meeting leader; NN, patient; and NN, geriatric medical specialist

Municipality: NN, homecare nurse from the department of elderly care and home care; NN from the care centre

General practice: NN, general practitioner, town/municipality

Agenda and objective:

At the meeting, the four parties represented will present their thoughts regarding the patient's admission. The objective of the meeting is to ensure a joint approach to, and a shared responsibility for, the patient's care and treatment. The hospital will forward the patient's care and treatment plan to all the involved parties.

A brief description of the video meeting – also referred to as the V4M manual - is attached to this email.

Your role:

Please be prepared to briefly present (2-4 minutes) your thoughts and questions about the patient's stay in hospital. Include any information about the patient that you think is relevant for the other parties. See the attached question guide for inspiration. The meeting is scheduled to last no more than 30 minutes.

Good video meeting etiquette:

Keep a polite and civil tone. If you need to address additional aspects about the patient's treatment pathway, you can discuss these with the meeting leader (who sent this mail) over the phone. Make sure to be in a room where privacy can be ensured.

The link to the virtual meeting is included in the same letter, e.g.

You are invited to participate in a virtual meeting hosted by NN on DATE at TIME (the host will let you in 15 minutes before the meeting begins).

For PC or android phone/tablet users, use either Chrome or Edge when logging on; for Mac or iPhone/iPad users, use Safari when logging on. If you log on from a computer, it's a good idea to copy the link into your browser instead of simply clicking on it as Chrome/Edge/Safari may not be your standard browser. If you log on from a mobile phone/tablet, just click on the link below.

Computer: Copy the link below into your browser to start the meeting.

Mobile phone/tablet: Click on the link below to start the meeting:

https://portal.vconf.dk/?url=70799@video.regsj.dk&pin=93019&start_dato=2021-11-19T12:15:00

If you use a client to host virtual meetings, e.g. Polycom, Jabber or Skype for Business, copy the meeting room address into the client you are using.

Meeting room address: XX@video.regsj.dk

Enter the following guest password: XXXXX

Annex 3 V4M Manual

V4M
Virtual 4-party meetings

Increase patient safety **BECAUSE** treatment, medication and follow-up are agreed between all parties

Create a sense of security for the patient and family member(s) in the transfer from one sector to another **BECAUSE** everyone has heard the same information

Facilitate coordination and collaboration on joint coherent solutions **BECAUSE** all parties propose solutions

Ensure sharing of knowledge and data **BECAUSE** there is a circular understanding of the patient's pathway

Increase the quality of the subsequent pathway **BECAUSE** a follow-up home visit by the general practitioner is arranged

Prevent misunderstandings **BECAUSE** the healthcare providers' knowledge gap about *the other* becomes clear

Manual for cross-sectoral video meetings (V4M)

Wentzer & Høgsgaard, VIVE 2022

Cross-sectoral video meetings (V4M)

Meeting leader, the patient's room at the hospital

Medical specialist, nurse, therapist at the hospital

Involvement of patients and family, the home

Homecare nurse, assistant, therapist, planner or municipal homecare assessor

General practitioner

WHERE: The patient's room at the hospital. Private room if possible.

WHO: Frail and vulnerable multimorbid patients for whom care and treatment must be coordinated across sectors. Family members can participate in person or online. The physician responsible for the patient's treatment, a nurse and therapist who are familiar with the patient's situation participate from the patient's room. The patient's general practitioner, healthcare professionals from the municipality participate online. In total 6-9 people.

HOW: The video meeting is agreed between the patient, their family and hospital staff. The meeting leader plans, coordinates and runs the meeting. The meeting lasts approx. 30 minutes. Participants are invited via email with a link to the regional meeting platform VDX. Participants can access the meeting via their mobile phone, tablet or computer.

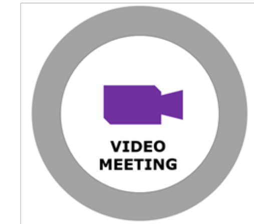
WHAT: The conversation focuses on the concerns of the patient and their family – and on issues that are important for the patient to talk about. Healthcare professionals contribute with their concerns and assessment of the situation. All the participants contribute with their knowledge and agree on goals and a joint care and support plan for the future.

DOCUMENTATION: The conversation is documented in the relevant system by the nurse. The physician documents agreements in the patient's medical record, which is communicated to the general practitioner via the discharge summary.

Tasks of the meeting leader, before the meeting

- Clarifies which patients need extended coordination of their pathways, for example:
  - Complex care and treatment
  - Concerns about the future
  - Frustrated family members.
- Makes agreements with patients/family about the video meeting. Provides the patient with more information about the meeting.
- Contacts general practitioner to set up the video meeting. Sends an email with a link and information about the meeting to the general practitioner.
- Contacts the municipality to obtain contact details for the homecare nurse/therapist (sometimes also the homecare assessor) who is familiar with the patient's current situation. Sends an email with a link and information about the meeting.
- Sends an email with a videolink and information to any family members who prefer to participate online.

The meeting leader is responsible for organising and running the meeting



- Sets up IT equipment and gets the room ready for the meeting
- Introduces everyone, presents the objective and scope of the meeting
- Ensures that everyone is involved in the conversation
- Supports a dialogical process
- Summarises the joint care and support plan
- Ensures any agreements and the joint plan are documented in the relevant system, medical records and any other agreements regarding follow-up

Preparing for the meeting, clinicians at the hospital

Before the meeting:

Talk to the patient about: *What is most important for you? What concerns do you have?*

Consider:

- What questions do you have for the patient's family, the municipality and the patient's general practitioner?
- What kind of problems have there been during the patient's admission?
- What is particularly important to be aware of at the time of the patient's discharge?
- What should the patient's general practitioner and the municipality be particularly aware of after the patient has been discharged?
- What in your opinion can help prevent readmission?
- What is a good joint care and support plan?

During the meeting:

- Present your patient notes, the patient's status and any particular concerns. Share your knowledge and assessment.

After the meeting:

- Document the plan and agreements in the relevant system – to be shared with the municipality
- Share medical observations with the general practitioner in the discharge summary

What is expected of the municipality?

Before the meeting, consider**:**

- What information about the patient's everyday life is important to share with the patient's family, the general practitioner and the hospital?
- What are your concerns about the patient's/family's situation?
- What would you like to know about the patient's admission?
- What do you need to know about the patient's discharge?
- What in your opinion must be done to avoid early readmission of the patient?
- What is important to include in a good care and support plan?

During the meeting:

- Share your knowledge and assessment

After the meeting:

- Follow up on agreements and documentation

What is expected of the general practitioner?

Before the meeting: The general practitioner is expected to have prepared a status of the patient's course of treatment in general practice.

Consider:

- What is particularly important for the hospital to be aware of about the patient and the family's situation?
- What are your concerns about the patient's/family's situation?
- What do you need to know in connection with the patient's discharge?
- What do the hospital and the other parties need to know to ensure follow-up and further treatment in practice?
- What in your opinion can help prevent readmission?
- What is a good joint care and support plan?
- Are follow-up home visits necessary?

During the meeting:

- Share your knowledge and assessment of the patient's pathway

After the meeting:

- Follow up on agreements , including plan for follow-up home visit(s)

Preparation, patient and their family

Consider:

- What has affected your health in the period leading up to your hospital admission?
- What is most important for you during your time in hospital and when you are discharged?
- What concerns do you and your family have?
- What would be a good plan for you?
- What concerns do you have about your discharge, and what are your hopes for your daily life at home?
- What can help prevent your readmission?
- How can your family help you?
- How can you benefit from the help provided by volunteers and the municipality?

VIVE