Turning Points in Intermediate Patient Care Paths of Elderly: Constructive Reflections on Video Experiments with GPs and Municipalities

Helle Sofie Wentzer\textsuperscript{a}, Ann Bygholm\textsuperscript{b}

\textsuperscript{a} VIVE - The Danish Centre for Social Research, Aarhus, Copenhagen, Denmark
\textsuperscript{b} Department of Communication and Psychology, Aalborg University, Aalborg Denmark

Abstract

The Danish healthcare system has transformed toward shorter hospital stays and increased dependency on primary care in municipalities. General practitioners (GPs) are key to preventing the (re)admission of elderly patients to the hospital, but visits to elderly, bedridden patients are not always compatible with GPs’ office hours. This paper presents and discusses experiments with video in intermediate care paths for the elderly. The first experiment presents an ethical design guideline and playbook for cross-sectorial collaboration between a GP, home nurse and patient with video. The second experiment tries out video consultations with GPs in patient care paths. An ideographic, in-depth analysis of the communication and interaction between a 72-year-old male patient at a rehabilitation unit, his GP and municipality nurse give insights into clinical, organizational and technical aspects of video-mediated health care services. The analysis is reflected and discussed from a systemic perspective: At the micro-level, patient empowerment and safety in the patient care path from the video consultation are possible but cognitively demanding and risky for the role of the GP and the nurse. At the meso-level, interdisciplinary collaboration between the GP and the nurse depends on clarification of user roles, tasks and training in order for video to be efficient and safe. At the macro-level, the development of a cross-sectorial learning strategy, as well as a more thorough analysis of the kind of medical attention needed, is helpful for dividing tasks and responsibilities in intermediate care paths.

Keywords:
Video, Intermediate Care, Integrated Care, GP, Collaboration, User Involvement.

Introduction

Creating safe patient transitions from specialized treatment at hospitals to rehabilitation and care in municipalities is a well-known challenge for health care \cite{1}. In the Danish context, two sectors deliver healthcare services: the primary sector of general practitioners (GPs) and municipalities (given the responsibilities of health prevention, care and rehabilitation) and the secondary sector of specialist care and treatment at hospitals. The patient care paths across sectorial boundaries, also called “the Bermuda triangle,” are risky for patient safety and ineffective to marshal resources. Preventing the readmission of patients to the hospital shortly after they are discharged from the hospital, is a central concern to improve quality of care and patient safety, as well as to minimize the cost and resources for sending patients in and out of hospitals \cite{2, 3, 4}. GPs play a pivotal role in the Danish healthcare system where they act as gatekeepers to secondary healthcare and manage most chronic and acute diseases \cite{5}. GPs are central to prevent patients from being (re-)admitted to hospitals \cite{6, 7}. The organization of general practice in patient consultations with 10- to 15-minute intervals between patients and a full waiting room leave little time for GPs to drive out on doctor’s visits. Especially elderly, bedridden patients and patients older than 65 years with multi-morbidity and chronic diseases are most likely to be readmitted to the hospital \cite{6}. Research shows that nursing-based case management and outgoing teams have no effect on readmission rates \cite{8}. The GP is central in diagnosing ambulatory sensitive conditions. Intermediate patient care paths are challenged by the distance and workflow of general practice. There is a temporal and geographic distance to bridge in connecting the GP to the patient and the municipality nurse.

Materials and Methods

In a joint venture with the public, the region of Central Jutland, which runs the hospitals and pay the GPs, and the municipality of Aarhus arranged a 24-hour workshop with citizens to innovate patient care paths and the collaboration between the municipality and GPs \cite{9}.

Video was pointed out as a possible tool for supporting the communication and coordination of care paths across sectors especially when patients are discharged from the hospital to rehabilitation and care units in municipalities, and for virtual home visits for patients who require follow-up visits after hospitalization. The region has since collaborated with several municipalities, GPs and researchers to develop an infrastructure enabling video collaboration in the patient care

\textsuperscript{1} Helle Sofie Wentzer, Ann Bygholm

\textsuperscript{2} VIVE - The Danish Centre for Social Research, Aarhus, Copenhagen, Denmark
\textsuperscript{3} Department of Communication and Psychology, Aalborg University, Aalborg Denmark

Abstract

The Danish healthcare system has transformed toward shorter hospital stays and increased dependency on primary care in municipalities. General practitioners (GPs) are key to preventing the (re)admission of elderly patients to the hospital, but visits to elderly, bedridden patients are not always compatible with GPs’ office hours. This paper presents and discusses experiments with video in intermediate care paths for the elderly. The first experiment presents an ethical design guideline and playbook for cross-sectorial collaboration between a GP, home nurse and patient with video. The second experiment tries out video consultations with GPs in patient care paths. An ideographic, in-depth analysis of the communication and interaction between a 72-year-old male patient at a rehabilitation unit, his GP and municipality nurse give insights into clinical, organizational and technical aspects of video-mediated health care services. The analysis is reflected and discussed from a systemic perspective: At the micro-level, patient empowerment and safety in the patient care path from the video consultation are possible but cognitively demanding and risky for the role of the GP and the nurse. At the meso-level, interdisciplinary collaboration between the GP and the nurse depends on clarification of user roles, tasks and training in order for video to be efficient and safe. At the macro-level, the development of a cross-sectorial learning strategy, as well as a more thorough analysis of the kind of medical attention needed, is helpful for dividing tasks and responsibilities in intermediate care paths.

Keywords:
Video, Intermediate Care, Integrated Care, GP, Collaboration, User Involvement.

Introduction

Creating safe patient transitions from specialized treatment at hospitals to rehabilitation and care in municipalities is a well-known challenge for health care \cite{1}. In the Danish context, two sectors deliver healthcare services: the primary sector of general practitioners (GPs) and municipalities (given the responsibilities of health prevention, care and rehabilitation) and the secondary sector of specialist care and treatment at hospitals. The patient care paths across sectorial boundaries, also called “the Bermuda triangle,” are risky for patient safety and ineffective to marshal resources. Preventing the readmission of patients to the hospital shortly after they are discharged from the hospital, is a central concern to improve quality of care and patient safety, as well as to minimize the cost and resources for sending patients in and out of hospitals \cite{2, 3, 4}. GPs play a pivotal role in the Danish healthcare system where they act as gatekeepers to secondary healthcare and manage most chronic and acute diseases \cite{5}. GPs are central to prevent patients from being (re-)admitted to hospitals \cite{6, 7}. The organization of general practice in patient consultations with 10- to 15-minute intervals between patients and a full waiting room leave little time for GPs to drive out on doctor’s visits. Especially elderly, bedridden patients and patients older than 65 years with multi-morbidity and chronic diseases are most likely to be readmitted to the hospital \cite{6}. Research shows that nursing-based case management and outgoing teams have no effect on readmission rates \cite{8}. The GP is central in diagnosing ambulatory sensitive conditions. Intermediate patient care paths are challenged by the distance and workflow of general practice. There is a temporal and geographic distance to bridge in connecting the GP to the patient and the municipality nurse.

Materials and Methods

In a joint venture with the public, the region of Central Jutland, which runs the hospitals and pay the GPs, and the municipality of Aarhus arranged a 24-hour workshop with citizens to innovate patient care paths and the collaboration between the municipality and GPs \cite{9}.

Video was pointed out as a possible tool for supporting the communication and coordination of care paths across sectors especially when patients are discharged from the hospital to rehabilitation and care units in municipalities, and for virtual home visits for patients who require follow-up visits after hospitalization. The region has since collaborated with several municipalities, GPs and researchers to develop an infrastructure enabling video collaboration in the patient care
paths for elderly patients. This is part of the national policy on elderly patients and digitalization [10, 11, 12].

The aim of this research project is to collect context-sensitive knowledge on GPs’ communication, interaction and collaboration with the patient and the municipality nurse via video consultations. The study’s scientific background is ideographic (and not nomothetic); that is, the truth value relates to an interpretative phenomenological analysis of data, and not a quantitative analysis with a focus on frequency.

Data is generated from two experiments: The first experiment is a series of design workshops with an innovation group, representing different user and knowledge perspectives on integrated health care [13]. The second experiment is an ethnographic study of patient care paths to a rehabilitation unit (rehab unit) in the municipality for 24 hours of care after hospitalization [14]. Qualitative data is collected from observation, qualitative interviews [15, 16, 17], logging of data in the user-interface and video recordings of consultations [18]. An in-depth analysis of a patient case is presented to exemplify communicational aspects of patient safety in a video-mediated practice [19, 20, 21]. Permission to collect patient data and ethics was given by the Danish Authority [22].

The in-depth, phenomenological analysis is guided by the following questions: What takes place in the meeting, verbally and non-verbally (body language and examination)? How do the participants experience the clinical value of the intervention?

The results are reflected and discussed from a systemic perspective on the production of healthcare services. We differentiate between different levels of interaction:

- The micro-level, concerned with the direct interaction between the technology and the user, i.e., the video, the patient, the GP, the nurse (and others).
- The meso-level that refers to the professional and organizational context of use, i.e., the GP’s office, the patient’s home and the municipality’s care setting.
- The macro-level considers the political and institutional system that frames the overall activities, i.e., rules, norms and work divisions.

**Experiment 1: Design ethos and development of the playbook**

An innovation group was established with participants from the two sectors and from the DænAge Association, i.e., two GPs, two home nurses, two IT support specialists from the municipality, two IT supporters from the region and two elderly citizens.

The innovation group consented to a shared design ethos and developed a coordination and communication tool, “the Playbook for Follow-up Home Visits by Video Consultation with GP” [13, appendix i].

**Table 1 – Design ethos for cross-sectorial collaboration**

<table>
<thead>
<tr>
<th>Purpose of video-consultation</th>
<th>Efficiency, flexibility and safety/security for all participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants</td>
<td>Patient, GP, Nurse and Providers (Health Care Law on Clinical Responsibilities of Patient Safety, Data Protection Law)</td>
</tr>
</tbody>
</table>

This principle guided the design process of the playbook, and served as the evaluation framework for testing the playbook in real-life settings. The playbook contains the procedures for interdisciplinary collaboration on video consultations between the GP and the municipality.

**Playbook test scenarios**

The playbook was tested in the private homes of the two elderly citizens participating in the project and at the clinics of the two GPs. Two patient scenarios were constructed as use cases, with the elderly participants acting as patients in their own homes. The two home nurses (who brought pillboxes as medication props) guided the video calls at each house and moderated the interaction between the patient and the GP. The two GPs were situated in their local clinics, behind their desks with a web cam installed on their PC screen. The IT support from the municipality and from the region helped the nurses get a Wi-Fi connection at the elderly individuals’ homes and install the video clients on the nurses’ laptops and on the GPs’ PCs, including the speakers and webcam.

The tests showed that patient safety, efficiency and flexibility in collaboration depend on the following. See table 2.

**Table 2 – Lessons learned from the testing of the playbook**

<table>
<thead>
<tr>
<th>Roles</th>
<th>Goals: Efficiency, Flexibility and Safety/Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video</td>
<td>A stable, Wi-Fi infrastructure and a software client with data encryption.</td>
</tr>
<tr>
<td></td>
<td>The GP and nurse should be able to find each other easily as contacts in the interface. Phone numbers are exchanged as the second contact option.</td>
</tr>
<tr>
<td>Nurse</td>
<td>Book the patient’s GP for a 30 min. video consultation.</td>
</tr>
<tr>
<td></td>
<td>Prepare the clinical information on the patient’s physical medication, prepare the elderly patient for communication via video with the GP, and arrange the camera/laptop in a convenient position to support the highest-quality sound and images.</td>
</tr>
</tbody>
</table>
The innovation group also pointed to the following risks: If the technical infrastructure fails, it has consequences for the whole health intervention, as the attention of the parties (the GP, nurse and patient) focused on establishing the Wi-Fi and software connection for communication. To avoid causing confusion, the video solution is not recommended for elderly patients with cognitive impairments.

Experiment 2: Video consultations in patient care path

Video consultations were tried out with patients in a rehabilitation unit, run by the municipality of South Djursland. The rehab unit has a stable Wi-Fi connection and 24 beds for patients, who have been discharged from hospitals but still require healthcare services. The unit offers 24-hour care and daily rehabilitation with an interdisciplinary team of a nurse, physiotherapist and occupational therapist. Twenty-four hours after a patient is discharged from the hospital, the patient’s GP becomes responsible for diagnosis and treatment. Many of the patients’ GPs live more than 18 km from the rehabilitation unit and are not obligated to conduct a doctor’s visit. GPs from two clinics agreed to try out video as a possible medium of communicating with patients in the rehabilitation unit.

Video experiment with GPs

Five video consultations were carried out, with three GPs, four patients, a spouse and nurses from the rehab unit. For several reasons, the video consultations were very difficult to carry out. The reasons address organizational, technical and clinical perspectives.

Clinical perspectives

The GPs and the rehab unit agreed on sub-acute patients without dementia as possible participants in a video consultation. In practice, this was not a specific enough criterion for patient inclusion to secure a clear division of tasks and roles between the GP and the municipality nurse. Their communication was amplified by their separate and multiple contexts and therefore, cognitively demanding and emotional complex for the participants. On one side, the number of health issues that were addressed was impressive. On the other, communication and examination evolved erratically and unevenly, making it clear that all parties were uncertain about their roles and competences. The following analysis of a 27-minute recording of a video consultation between a GP, a patient and a municipality nurse gives some insights into some of the dynamics and challenges for video-mediated consultations between the GP and the municipality.

Themes of communication in video-mediated patient case

Five persons participated in the video consultation: the GP at his office and the 72-year-old patient and a nurse in the rehab unit together with the patient’s younger sister and brother-in-law. A researcher observed and video-recorded the interaction in each setting. The analysis of the video recordings gives the following picture. The patient’s medical story unfolds in the 27-minute video consultation with 11 themes:

i. The nurse, who initiates the communication between the patient and the GP, sums up the medical reason for the consultation, ‘the patient’s problem’: The patient is paralyzed on one side after a stroke and doubts whether he should agree to be resuscitated in the event of a new stroke.

ii. The GP asks for the patient’s blood pressure. The patient and the nurse confirm that it is stable.

iii. The GP takes a positive and motivational stance. He confirms to the patient, and indirectly to the relatives participating and the nurse, that he is still a strong man with a life ahead of him, and that he can benefit from training. He is “at the rehab unit because we believe in you.”

iv. The GP observes tears on the patient’s cheeks and asks if he gets any medication for depression. The nurse confirms he does and tells the doctor.

v. The sister sobs loudly during the consultation. She mentions her brother’s future possibility of moving into a nursing home instead of going back to his private home.

vi. The nurse asks the doctor for correct treatment of a wound on his lower leg. The patient’s sister shows a tube and asks whether the (ointment) medication can be used for the wound. It was prescribed by the GP’s substitute before the stroke and hospitalization.

vii. The GP declines to give an opinion and recommends they arrange for a new doctor’s visit during which a physical examination of the wound is possible.

viii. In the meantime, the nurse takes the camera and shows the GP close-up images of the leg ulcer.

ix. The GP changes his recommendation and says that use of the medication can continue.

x. The nurse explains how she will treat the wound, and the GP confirms her plan.

xi. The consultation ends by the GP repeating and emphasizing to the patient (and indirectly to the group) that he was discharged from the hospital to the rehab unit because they all believe in his will and strength to be able to regain some of his mobility.

User receptions of the video patient case

It appeared in the follow-up qualitative research interviews that the GP experienced a cognitive overload due to the many sources of verbal and non-verbal information over which he had little control. The nurse was uncertain about the technology, hardware and software, and depended on a

<table>
<thead>
<tr>
<th>Call the GP at the scheduled time for the video consultation.</th>
<th>Improved information in comparison with telephone calls from nurses trying to describe the patients’ symptoms.</th>
<th>Video consultation is desirable compared to no doctor visit.</th>
</tr>
</thead>
</table>
super-user to help her make the call and to activate the screen from the sudden stand-by mode. She was also uncertain about her role as moderator, relating to the patient and his sister and brother-in-law as their advocate and to the GP as a clinical supervisor to acknowledge her nursing competences. Thus, the GP and the nurse are put under pressure from the video consultation, with unclear benefits for their professional roles, and their ability to perform cross-sectorial and interdisciplinary collaboration.

The patient, however, experienced emotional relief from being visually perceived and acknowledged by his GP, especially because the GP knew him before the stroke, who he was as a healthy person, namely, very strong physically and mentally.

An existential situation
The video consultation had a positive impact on the patient’s self-confidence and motivation to participate in the rehabilitation program. His interpretation of his own health situation changed from being “a vegetable not worth reviving” to consenting to be resuscitated in the case of a new stroke. In his GP, the patient had somebody who talked to him directly, and who sensed his “locked-up” situation: locked up from sitting in a wheelchair with one side of his body paralyzed but also the context of sitting between his brother-in-law and sister. The brother-in-law looked very uncomfortable with the whole situation, and his sister was crying, devastated by the patient’s misfortune. His situation also put her in a new situation, practical as well as relational. She has to do his laundry (not part of the rehab unit’s service). She lives several hours’ drive away and was used to be in a sibling relation with him as her big brother, i.e., strong and protective. In contrast to this situation, the video presence of the GP offered the patient openings and possibilities of restoring his personhood and future life prospects.

Organizational perspectives
From an organizational perspective, different understandings of the importance of GPs to integrate care came to the forefront. The municipality has a general interest in strengthening collaborations with GPs in video consultations. Prevention of (re)hospitalization of the elderly saves resources in the municipality, and health prevention and rehabilitation are among the municipality’s responsibilities. The municipality director of health prevention and home care has invested in the technical infrastructure of implementing Wi-Fi, computers, software, project management and education of super-users at the rehab unit. The region supports the development of an IT infrastructure and among others, the use of video in intermediate care. A special economic agreement is arranged with the GPs who participate in the experiment [23].

Ethical dilemmas in processes of intermediate care
The management at the rehab unit are ambitious to include medical resources as well. The geographic distance between the rehab unit and some of the GPs is a challenge, and driving patients to the GP or readmitting them to the hospital happens frequently. The push from elderly patients coming in and out of the hospital to the rehab unit and back again, on occasions with patients dying a few hours after they have been resuscitated, put the care personnel in a dilemma. The procedure for asking patients to consent to resuscitation is part of this dilemma. Nurses are by the health care law obligated to start resuscitation efforts if patients suffer a heath attack, but for some of the frail patients, it might not always be the right thing to do; that is, dying, not life, is prolonged [24, 25]. In 2014, instructions from the Danish Health Care Authorities were given in order to make patients proactively decide on resuscitation matters. When patients decide against resuscitation, family members are to be included, and the GP, who has to confirm and document the patient’s decision [26]. Asking patients about resuscitation then became part of the standard checklist at the rehab unit. The management has since renounced the procedure. As shown in the video analysis, the procedure also generates existential doubts in the patient’s mind whether he or she deserves resuscitation. Thus, the procedure is partly responsible for creating the patient’s ethical dilemma and “locked-up” situation. He is very dependent on the help of others, including his sister, and thus, is a burden, which makes it difficult for him to speak up for himself and insist on resuscitation in the event of a second stroke. Therefore, the GP becomes a great help to the patient. The GP, however, becomes part of a solution to a problem that is partly created by the accelerated care paths from the hospital to municipality care.

Resident doctor and consultant
The leader of the rehab unit favors more permanent access to medical help from a GP, preferably “two hours of daily visits” at the rehab unit. Resident doctors with frequent visits have been shown to increase the quality of the health care in nursing homes, among others, because the care staffs’ competences increase [27]. Therefore, video is not the first choice, only a solution that is part of the daily medical issues.

Other care personnel pointed to the need for doctors outside GP office hours, as many patients’ health conditions exacerbate at night, on the weekend and on holidays.

Competence in video-mediated collaboration
The leader of the rehab unit’s nursing group is reluctant to push her nurses to perform new tasks with video, especially without sufficient training and IT support. The doctor-nurse collaboration is fragile in cases where medical tasks slide from doctors to nurses without adequate education. As more patients with more complicated needs are discharged, the pressure on municipalities’ competences to secure patient safety has risen, and the dependence on collaboration with GPs has intensified. Interdisciplinary video consultation could push this already challenged collaboration too far in terms of the assignment of tasks, responsibilities and sufficient training.

Technical perspectives
The video plays an important role in creating a safe environment for the GP, patient and nurse to interact and communicate in.

**Empowerment versus depowerment from video**

From the patient’s perspective, the video was an opening in his care path. He was given ‘a voice’ from the video consultation that was otherwise difficult for him to have on the subject of resuscitation. The communication with his GP is a positive turning point in the patient’s care path. He is empowered to believe in the rehabilitation program, and in having a future. Nonetheless, the analysis points to an asymmetrical relation between the GP in his user context and the patient, nurse and relatives in their context of use, at the rehab unit.

Traditionally, in face-to-face communication, the asymmetrical relations between doctor and patient are interpreted as a power relation in favor of the doctor, reducing the role and influence of the patient to comply with doctor’s orders. This is not the case in the video experiments for several reasons. The patient is empowered, but the GP, as well as the nurse, is depowered.

The GP has little control over the process of the patient interview. Questions comes from many, including the patient’s sister, and make it difficult for the GP to predict and control the process on the difficult subject, which involves many emotions, but where the patient’s needs have first priority.

The nurse is depowered because of the many responsibilities and tasks at the same time. She is responsible for the technical side but also for the patient, presenting his case, and toward the sister and brother-in-law. She is brought into a double-bind situation between the resuscitation issues and the many emotional responses and questions she has to moderate and care for.

**Lack of video training**

Another example of the depowerment of the GP and nurse involves a cancelled video consultation. The GP was waiting for the nurse’s call, but the super-user at the rehab unit called in sick the same morning, and the nurse was not trained to do the call on her own. Thus, the GP waited in vain. Experiences of professional depowerment also affect the effectiveness of video, and make nurses as well as GPs more reluctant to schedule and agree to video consultations in the future.

**Asymmetrical configuration of users in the video display**

The depowering roles of the GP and nurse were partly caused by the constellation of the video camera. Because the camera angle has to cover four persons at a time, for the GP to see everybody, a distance is of approximately 3 meters is created between them and the camera and microphone.

![Figure 1- Asymmetrical configuration of video users](image)

This distance has some disadvantages. The quality of the audio is not adequate. The GP cannot hear their voices properly, and repeatedly asks what they say (seven times. Visually, all four persons are displayed on the GP’s interface in a diminished size. This means that the GP physically moves his chair and face as close to his PC screen as possible in order to get closer to see the facial expressions and body language better.

Another effect of this asymmetrical configuration is that because of the large size of the talking head everybody is figuratively addressed and encouraged to participate in the dialogue with the GP. Thus, instead of mainly the patient and the GP communicating with each other, the sister and the nurse also get very active in posing questions and setting the agenda of the interview. The diminished display of the group on the patient’s side and the close-up face of the GP, therefore, demanded a lot of attention of the GP and of the nurse to compensate and respond in a “safe way” to the unpredictable process of the interview.

**Results**

Context-sensitive knowledge on video consultations in primary care is developed from the design ethos, the guideline for testing video consultations on elderly patients discharged from the hospital and the in-depth analysis of a video consultation in a patient care path. The analysis gave insights into clinical, organizational and technical aspects of the video consultation.

**Context-sensitive knowledge**

The clinical context is highly sensitive to ethical problems of patient care and treatment; thus, video consultations are to create safety for the patient, as well as to the GP and the nurse, who have professional responsibilities. The video also shares responsibility as a medium of communication and interaction. Encryption of video data is one aspect of safety/security. Another is the importance of asymmetrical configuration of both contexts of use: the GP’s office and the patient’s and nurse’s care setting. The configurations quality of sound and visual display are important features in order to align the relation between the communicators, i.e., the GP, patient and nurse. Family or other participants in video consultations, therefore, risk influencing the quality and efficiency of the interaction negatively.
From the organizational context, it appeared that collaboration with GPs is important to the municipality, but also that different forms of medical help are requested in intermediate care. Video consultation was only one out of three possible solutions that also related to different contexts and processes of care:

1. Video consultations with GPs to improve the individual patient care path
2. Consultancy from a GP who visits the rehab unit for 2 hours every day to do doctor’s rounds and improve the quality of the treatment and care, including the competencies of the personnel
3. Emergency visits at nights and on weekends.

The collaboration between GPs and municipality nurses depends in general on adequate training and support in order for the doctor to delegate tasks and responsibilities to care personnel. In video-mediated collaboration, the user roles and tasks need to be defined and trained for the GP and the nurse to feel comfortable and professionally safe performing healthcare services that depend on video technology. The communication and interaction with video need more structure and well-defined tasks to be efficient and safe. Otherwise, the video consultations come at the risk of either being cognitively exhausting or do not take place as neither the nurse nor the GP is willing to take the trouble and risk.

Discussion

The results are not generalizable from a quantitative perspective on patient care paths, but qualitatively, the results contribute to the general understanding of the complexities in intermediate care, its ethical foundation and risks, but also of the possibilities for improvement. Within a systemic perspective, the results can be reflected at different levels of producing health care services. At the micro-level, patient empowerment and safety on the patient care path from video consultation is possible but cognitively demanding and risky for the role of the GP and the nurse. At the meso-level, interdisciplinary collaboration between the GP and the nurse depends on clarification of user roles, tasks and training in order for video to be efficient and safe. At the macro-level, the development of a cross-sectorial learning strategy, as well as a more thorough analysis of the kind of medical attention needed, is helpful for delegating tasks and responsibilities in intermediate care paths.

These reflections also emphasize the important recognition that video consultation does not solve the general need for GPs in municipality care units. There are more medical tasks, also related to doctors’ rounds, supervision and consultancy, that do not fit into a universal solution of video. As for the use of video, it would be preferable to focus on continuing the improvement of the design of video consultations. The communication lacks structure in order to empower the GP. Delegation of tasks and planning ahead of the video consultation would give the nurse a better possibility of performing her role, facilitating the communication and interaction between the GP and the patient with video.

To sum up, the design ethos of video consultations, i.e., to contribute to efficiency, flexibility and safety, depends on the symmetrical configuration of both user sides, and that the nurse and the GP are given the right competences to perform the specific tasks in the process: from scheduling the video consultation to preparing for it, and performing the patient interview and examination.

Conclusion

Video analysis can be a turning point in patient care paths for the elderly who require a doctor’s visit. Patient empowerment is possible, but the interdisciplinary and cross-sectorial collaboration between GPs and municipality nurses is in a premature state. A cross-sectorial learning strategy needs to be developed based on a clearer definition of tasks and competencies related to video consultations. Not all medical tasks in intermediate care can be performed by video. Video consultations should focus on a structure that supports the individual patient’s care path.

Acknowledgments

We would like to thank the Innovation group in Aarhus Municipality, the Region of Central Jutland, and patients and healthcare professionals at the Rehabilitation unit of Syddjurs Municipality for participating and sharing their experiences.

References


43

Audit Commission, More for less: are productivity and efficiency improving in the NHS? 2009

Udviklingens døgn, Aarhus Kommune, Region Midtjylland praksis. Udvalgte projekter, bilag 2, 2011, Aarhus Kommune, Aarhus


Nationale Strategi for telemedicine i Danmark 2012-2015. NSI Sundhedsstyrelsen 2011


Wentzer, HS Opfølgende hjemmebesøg med video. Kora 2013


www.datatilsynet.dk


Address for correspondence
Helle Sofie Wentzer, Olof Palms Alle 22, 2. DK-8200 Aarhus N.
Email: hewe@vive.dk


Sundhedsstyrelsen, Vejledning om fravalg af livsforlænærende behandling, herunder genoplivningsforsøg, January 2014