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Mind the gap

*Organizational factors related to transfers of older
people between nursing homes and hospital care*

MARIE KIRSEBOM



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Abstract

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The overall aim of the present thesis was to study factors related to transfers of older people between nursing homes, emergency department and hospital care.

The thesis was based on four studies and used three methods: focus group discussions, structured review of electronic healthcare records, semi-structured interviews with registered nurses and general practitioners.

Study I: nursing home nurses found it difficult to decide whether older residents should be referred to hospital from the nursing home. Hospital registered nurses reported often trying to stop premature discharges or having to carry out the discharge although it had not been fully prepared. *Study II:* transfer rate to ED was 594 over 9 months among a total of 431 residents (M 1.37 each). 25% were caused by falls and/or injuries, 63% resulted in hospitalization (M 7.12 days). The transfer rate was 0.00-1.03 transfers/bed; it was higher for private for-profit providers than for public/private non-profit providers. *Study III:* nursing homes with high transfer rates had fewer updated advance care plans than did nursing homes with lower transfer rates. More nurses from nursing homes with low transfer rates had a specialist education and training in dementia care and had worked longer in eldercare. *Study IV:* general practitioners perceived registered nurses' continuity, competence and collaboration with family members as important to quality of care in nursing homes; inadequate staffing, lack of medical equipment and less-than-optimal IT systems for electronic healthcare records are impediments to patient safety.

The findings indicate that organizational factors could explain differences in transfer rates between nursing homes. The studies highlight the importance of advance care planning together with residents and family members in facilitating future medical decisions. Registered nurses' continuity and competence are perceived as crucial to quality of care. To meet increasing demands for more complex medical treatment at nursing homes and to provide high-quality palliative care several changes should be made: Nursing homes should be equipped with suitable medical equipment and registered nurse staff should be matched accordingly; importantly, registered nurses and general practitioners should be able to access each other's healthcare record systems.

Keywords: hospitalizations, advance care planning, emergency service, patient admission, nursing homes

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"The care of older people should be the concern of everybody because older people's todays are potentially our tomorrows."

Rees, King & Schmitz, Nursing Ethics.
16(4), p 436, 2009

List of Papers

This thesis is based on the following papers, which are referred to in the text by their Roman numerals.

- I Kirsebom, M., Wadensten, B., Hedström, M. (2012). Communication and coordination during transition of older persons between nursing homes and hospital still in need of improvement. *Journal of Advanced Nursing*, 69(4):886-95.
- II Kirsebom, M., Wadensten, B., Hedström, M., Pöder, U. (2014). The frequency of and reasons for acute hospital transfers of older nursing home residents. *Archives of Gerontology and Geriatrics*, 58(1):115-120.
- III Kirsebom, M., Hedström, M., Pöder, U., Wadensten, B. (2015). Transfer of nursing home residents to emergency departments: organizational differences between nursing homes with high vs. low transfer rates. *Manuscript submitted*.
- IV Kirsebom, M., Hedström, M., Pöder, U., Wadensten, B. (2015). General Practitioners' experiences as nursing home medical consultants. *Manuscript under review*.

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Abbreviations

ACP	Advance Care Plan
ED	Emergency Department
EHR	Electronic healthcare record
GP	General Practitioner (physician in primary care)
ICD-10-SE	International Statistical Classification of Diseases and Related Health Problems (Swedish version)
NH	Nursing home
OOH	Out-of-hours
RNs	Registered nurses
SALAR	Swedish Association of Local Authorities and Regions
WHO	World Health Organization

Prologue

I went from a profession within marketing and biotechnology to becoming a newly educated registered nurse (RN) in 2005. I took my first steps as an RN in the field of palliative care and within the eldercare system in the municipality. For 5 years I worked in nursing homes, home-based care and as an on-call RN during evening and weekends. I have worked in different kinds of organizations providing care, from public/private non-profit providers to private for-profit providers.

Transitional care includes actions that ensure the coordination and continuity of care between settings (e.g., hospitals and nursing homes or patients' home). As an RN in a nursing home, I have experienced (on a bad day) the frustration of experiencing collaboration that has not worked the way I planned, such as when patient is returned from the hospital late on a Friday afternoon with many questions unanswered and no medications sent with the patient. On the other hand, there is satisfaction when the stars align and one has succeeded in arranging a smooth medical examination for an older person in hospital and when he/she returns later during the day satisfied with the treatment and with the healthcare staff involved. Questions arose if we work in the best possible way within the eldercare system in the municipality. The challenges associated with coordination and collaboration of care activities are perhaps found in our different roles as RNs, general practitioners (GPs) and the different organization of care in hospital and in the municipality. We need to discover how we can work effectively together when patients and family members move from one healthcare setting to another.

Introduction

The population in Sweden has increased since 2007 by 300,000 and the number of hospital beds has steadily decreased (1). Most countries are experiencing the ageing of their population. An ageing population is one of the greatest healthcare and economic challenges we face today. This trend will increase the need for and focus on healthcare services for older persons in the future (2, 3). In Sweden women live longer than men, but the gender gap is closing. In 2013, the average life expectancy for men rose above 80 years of age for the first time (4). Increasing age has been identified as a risk factor for multimorbidity, which is also associated with increased healthcare utilization (5). This group of frail older individuals with extensive healthcare needs is often referred to as the most ill group and consists of approximately 300,000 individuals (6). In Sweden, as of this year, there is a new law aimed at strengthening and clarifying patients' position and promoting patients' integrity, self-determination and participation (7). To live up to the intentions of the new law, the care provided in nursing homes must become increasingly person-centered.

Despite the increase in both the aging population and the number of older person living in nursing homes, clinical research in nursing homes is still scarce. Therefore, in the present thesis, the focus is on studying the care provided for older persons in nursing homes, unplanned transfers to the emergency department and cooperation and coordination of care activities between nursing homes and the hospital.

Person-centered Care

Person-centered care is a complex and multidimensional concept. It was first described as care that takes the person's subjective experience of health as its starting point. The concept has been further developed and is often used to describe good care, especially within eldercare (8, 9). In Sweden, the concept is now used in official guidelines, for example guidelines for dementia care (10). Person-centered care focuses on persons' individual needs and honors their values, choices and preferences rather than focusing on matters of efficiency for the care provider (11). From this perspective, the concepts of 'person' and 'personhood' bring with them the idea of 'being an authentic person' and make it an important concept in person-centeredness. In philos-

ophy, there are many perspectives on the meaning of ‘person’. Immanuel Kant’s ideal is that a person should ‘Act in such a way that you always treat humanity, whether in your own person or in the person of any other’ (12). As a patient, it is to some extent legitimate to be at a disadvantage, but as a person it is expected that one should be taken seriously as an equal partner (13). Person-centeredness is defined by Kitwood, p 7-19, as:

...a standing or status that is bestowed upon one human being, by others, in context of relationship and social being. It implies recognition, respect and trust.

Kitwood influenced dementia care and argued that it is important to see the person as a human being, not as the sum of diagnostic labels (14). Person-centeredness has become an important concept for nursing practice, because the registered nurse (RN) is involved in processes that keep the person at the center of caring interactions (15).

It is argued that the care environment has a significant impact on implementing person-centered processes. Achieving person-centered care involves recognizing the importance of effective teamwork, handling heavy workloads and staff relationships and being able to create an atmosphere for practicing person-centered relationships (16). Moreover, today’s strategies for patient safety should be developed alongside developments of care environments that enhance person-centeredness (9). In addition, in healthcare where everyday practice is challenging, often stressful and largely unpredictable, it is important to consider how these person-centered moments can be transformed into ‘person-centered cultures’ of practice, where satisfaction and feelings of well-being are part of everyday life (16).

The organization of eldercare in Sweden

Healthcare is a public responsibility in Sweden, financed primarily through taxation (17). Medical healthcare is regulated by the Health and Medical Services Act (18) and provision of primary healthcare, hospital and outpatient care is the responsibility of the 21 county councils in Sweden (19). The municipalities are required to offer social care (19). Since the “Ädelreformen 1992”, a comprehensive reform introduced by the government, the municipalities also have overall responsibility for long-term care and services for older persons. Long-term care is provided either in the older person’s home or in a special accommodation (17). The municipalities’ responsibility for medical healthcare includes the care provided by RNs, rehabilitation and assistance technology. Physicians are employed by the county councils, which have an agreement with the municipalities concerning the extent and

form of physicians' services to older persons receiving long-term care at home or in special accommodations (18).

Nursing homes

One form of special accommodation in Sweden is nursing homes intended for older persons 65+. The policy in Sweden favors older persons remaining in their ordinary homes as long as possible (20). Therefore, many older persons are about 80 years of age when they move to a nursing home. People in nursing homes have extensive health and social care needs around the clock (21).

Nursing homes are often specialized in terms of the care they provide, such as dementia, psychiatric and nursing care. In addition, they may have different orientations, e.g., medical care: Parkinson's, stroke or palliative care. There are also nursing homes oriented toward specific activities or needs, e.g., nursing homes for older people who speak other languages, people interested in, for example, animals, gardening or music (22).

In Sweden, eldercare has been contracted out according to law (23) and older persons have the option to choose their care provider (24). The nursing homes are run by private for-profit providers and public/private non-profit providers. There is an ongoing transition from public/private non-profit providers to for-profit providers, and the proportion of for-profit providers has increased from 1% in 1990 to 16% in 2010 (25). The growth of privatization has been registered in the metropolitan areas. In 2003, approximately 25% of the privately engaged labor was found in the metropolitan municipalities (26).

It has been shown that the level of education among staff in eldercare is low (27, 28), and there is considerable variation in nurse staffing standards and actual staffing levels within and between countries (29). A Swedish cross-sectional study with repeated measures and conducted in one city reported that the nursing workload increased to the point of becoming a problematic situation during the 1990s (30). It is within the municipalities' area of responsibility to staff nursing home so that residents can live a safe and secure life (31).

Staff in nursing homes

The Swedish National Board of Health and Welfare recommends that staff in nursing homes have at least upper secondary school level training in healthcare and qualifications in eldercare (32). A proposal for a new regulation and general advice (coming into force in 2015) states that all nursing homes should be staffed based on residents' individual needs, staffed around the clock and adapted so as to meet residents' overall needs (33).

Today, nursing homes are staffed at all hours with nurse's aides and assistant nurses (32). The organization of medical care in nursing home care differs between countries (34-36), but RNs usually have the highest nursing and medical competence at nursing home facilities. It has been reported that RNs working with older people sometimes lack faith in their own competence and feel insecure in their roles (37).

Physicians, primarily general practitioners (GPs), work as consultants to nursing homes and play important key roles in the medical care provided there. In Sweden, GPs are employed by the county council and healthcare centers where they have outpatients of different ages, but they also have an assignment to a nursing home. English studies have shown that GPs' consultation rates and time they spent on nursing home residents were higher compared to rates and time spent on other patients aged 65 and over (38, 39). Furthermore, nursing home patients in general are associated with a high workload for GPs (36, 39, 40).

The organization for nursing homes' out-of-hours on-call services for medical care varies in organizational structure both within Sweden and between countries. RNs often work alone during these hours and are often responsible for larger geographical areas including both nursing homes and home-based care (27). Out-of-hours service may create obstacles to optimal end-of-life care. When on-call staff are present, the residents' wishes are not taken into account (41).

Quality of care

Open comparison

Open comparison has previously been possible only for other non-medical professions (42). The aim of open comparison is to increase the transparency and the possibility to compare quality and efficiency in different areas within municipalities, county councils and regions. Open comparisons for areas in healthcare and social service, for example in the area of eldercare (17), are made by the Swedish National Board of Health and Welfare and the Swedish Association of Local Authorities and Regions (SALAR) in collaboration.

The challenge for a municipality and county council is to make contributions to care by promoting a holistic view and quality. When studying the quality of care using open comparisons, evidence-based structural, process, and outcome measures, which are called quality indicators, are used. These indicators are collected from different national quality registers; for older persons, Senior alert, the Swedish BPSD register (behavioral and psychological symptoms in dementia), the Swedish Register of Palliative Care and Riks-Stroke are used. Data are also gathered from national survey studies and from Swedish official statistics, for example the National Patient Regis-

ter (17). In the last report from the open comparison for eldercare, the quality indicators have been updated with new indicators such as: pain relief at the end of life, action in patients with reduced oral health, and use of antipsychotic drugs (21).

Avoidable hospitalization

Some of the quality indicators collected in the open comparison concern avoidable hospitalization, i.e. avoiding unnecessary inpatient care and readmission within 30 days since last discharge (43). The rationale for avoidable hospitalization is that some chronic conditions, e.g., diabetes and chronic obstructive lung disease (COLD), can be treated with favorable results in primary care, as can certain acute conditions if adequate and timely treatment is provided (17). Readmission within 30 days has been viewed as an indication of shortcomings in hospital treatment or of premature discharge (44).

Quality of care in nursing homes

Quality of care is a complex concept and therefore difficult to define. Quality is essentially a question of values. Donabedian's definition of quality is probably the most established model in the field of medical research (45). He suggests that information regarding quality of care can be based on the framework *structural*, *process*, and *outcome* measures. Structural factors describe the context in which the care is delivered, i.e. organizational aspects such as management, staffing, the physical facility and equipment. Process is the sum of all activity that affects healthcare, diagnosis, treatment, and preventive care. Processes include care delivery, information obtained from healthcare records, recording observations in the healthcare setting, and interviews with patients and medical staff. Outcome refers to the result of healthcare, such as the prevalence of pressure ulcers, falls, malnutrition and patient and family satisfaction (46). The fundamental assumption of the theory of quality of care is that good work organization, care processes, and adequate staff competence are related to desirable outcomes (45). Difficulties arise in quality measurement because there is a diverse range of opinions, preferences and expectations held by different actors: politicians, healthcare professionals, consumers and relatives. Media coverage of the poor and sometimes unacceptable conditions in nursing homes has increased the general interest in quality controls and improved contract agreements (47). In addition, quality indicator development and testing for nursing homes are underdeveloped areas (48).

Quality of care in nursing homes requires a systematic approach in which all actors agree on what services should be provided (49). A key tool in achieving the desired quality is the documents in the procurement contracts.

SALAR (50) has developed a guide for control of quality in procurements of nursing homes in Sweden. The guide includes preparation for compiling the questionnaire: requirement for suppliers and services, evaluation of offers, incentives for high quality (financial or ability to obtain new contracts) and requirements regarding follow-up activities. One national quality register for healthcare in Sweden is the 'Senior alert,' the aim of which is to improve activities to prevent falls, pressure ulcers, abnormal weight loss, oral diseases and bladder dysfunction or incontinence (51).

An important aspect is the quality of life in old age. One review concluded that there is sufficient research evidence to be able to reach some consensus about what constitutes a 'good life' in older age. There are two key components that are important to the overall level of wellbeing: physical and social wellbeing (52). According to Nolan et al. (53), the 'Senses framework' may help in providing care that results in improved quality of life. The framework suggests that all persons involved in care, including the older person, family and staff, need to experience a relationship that gives a sense of security, continuity, belonging, purpose, fulfillment and significance. Hence, the framework is built on the need for relationship-centered care, not solely person-centered. Knowing the older person is central to successfully implementing the 'Senses framework' (53). There is a need to refocus on what counts as a good life in old age and on whether the care should be changed toward person-centered (9) or a relationship-centered care (53), both of which could benefit the older person. Koren (54) described this as a change in culture that makes nursing homes more oriented toward caring and the relationships between people and less oriented toward care tasks.

Advance care planning (ACP)

The ACP is an important part of high-quality care in nursing homes and offers a way to improve care, thereby improving the health of the older person and reducing the costs of healthcare (55).

The aim of an ACP is to plan for quality of care, together with the older person and family members. Getting to know the older person and making a plan for advance care (ACP) are the basis for person-centered care. An ACP is created in a meeting with the responsible GP and RN, the older person, family members and sometimes a contact person. The older person should receive written information prior to the meeting. The older person's and family members' wishes and preferences are written down and consensus is reached regarding the care (56).

In Sweden, the term medical care plan is used in some local municipal guidelines, but the same issues are discussed as in ACPs. Nonetheless, it is up to each GP to decide what to discuss with the older person and family members. According to The National Board of Health and Welfare, a phar-

maceutical review of medications should be carried out yearly for older persons living in nursing homes (57).

It has been argued that transfers from nursing homes to emergency departments (EDs) can be avoided (58-60) by increasing the extent to which some symptoms are treated in nursing homes (61, 62) and by improving primary care (63, 64). ACPs are important for the care of the older person and could result in decreased hospital admission and mortality of nursing home residents (65).

Transfer to ED and admission to a hospital ward

The care processes in the ED may differ depending on country or hospital size. Older people from nursing homes are a growing user group at the ED, and they often have complex needs (66). In general, only 32-68% of geriatric patients who visit the ED are admitted to the hospital; many are discharged after diagnosis and treatment at the ED (67). In addition, many discharged patients are subjected to unplanned readmissions, despite recognition of psychosocial, cognitive and medical problems during their initial ED visit, or insufficient follow-up (68). Naturally, some transfers from nursing home to ED are medically justified, e.g., falls and fractures (69). However, several studies have indicated that nursing home residents frequently use the EDs for evaluations (70-78). Jensen et al. (79) raised the question of whether older people from nursing homes are transferred unnecessarily to EDs, or whether the high transfer rate reflects an actual need. This is important to acknowledge, as a visit to the ED may be exhausting and stressful for frail older persons (80), and hence may result in patient confusion and thereby difficulty co-operating during examinations (81, 82). Additionally, it has been shown that hospitalization may entail a risk for nosocomial infections, inadequate information exchange between care facilities and discontinuities in care for residents (83, 84). Ong et al. (85) showed high mortality among older persons from nursing homes who had been admitted to hospitals. Dobalian (86) found that nursing home residents with medical directives from a physician stating that they should remain in the nursing home are less likely to be transferred.

Besides the potential benefits for the frail older person, avoidance of inappropriate and unnecessary transfers may result in economic benefits for society (59, 70, 87, 88). Previous studies from the US have shown that nursing homes run by private for-profit providers are more likely to send residents to hospital than are public or private non-profit providers (89, 90). Hospital care is more expensive than nursing home care, and transfers may be prevented by performing acute-care medical healthcare in nursing home facilities (91).

Communication and coordination

Communication between hospital RNs and nursing home RNs is of great importance, because communication is the key to providing safe and professional care for older persons in connection with a transfer to and from the hospital (92). Exchange of information between staff is inevitable for effective planning of discharge from hospitals (93, 94). Even so, communication and exchange of information between providers in the healthcare delivery system are sometimes inefficient and often inadequate (95). Poor communication in medical practice is the most common cause of errors. Standardizing the patient handoff process and teaching medical students the proper handoff method could be a way to reduce errors (96). Studies have shown that nursing home residents are often moved to and from hospital without any written documentation (97) or other exchange of information between care providers (98). Hence, in the process of transferring the older person from the nursing home to the ED, there is a major risk that information will be inadequate. Information may be corrupted and distorted, and thereby made useless with regard to understanding the older person's needs (99, 100).

It is important to consider what kind of information should accompany an older person in transition. It has been a lack of a standardized structure of communication and proper tools together with status differences between RNs and physicians can make communication less effective (101). RNs have a tendency to describe in more detail and with more words, whereas physicians express themselves in brief statements (102). Today, SBAR (Situation-Background-Assessment-Recommendation) is recommended as a structured communication tool for handovers in healthcare (103), and use of the tool may reduce this difference. According to one review study (104), accurate information mastery for medical staff and leadership are extremely important, both in nursing homes and hospitals, as is developing a strategy for improving communication.

People with chronic and co-morbid conditions experience their care as discontinued and fragmented due to the different care providers involved (105). It is a challenge for the healthcare system to provide coordinated care for older people with complex needs, as healthcare systems often contain parallel organizations, where no one assumes the overall responsibility for the care (106). To enable older persons to receive treatment for chronic conditions and at the same time avoid inappropriate, potentially harmful hospitalization, cooperation and united actions between different care providers – e.g., hospital, primary care and nursing homes – would seem to be of vital importance (43, 69).

Rationale for the thesis

An aging population and increasing requirements for robust healthcare and coordination of care for older people are becoming more evident globally. For older persons with multiple illnesses who cannot live in their own homes owing to increased care needs and/or disease, nursing homes provide both nursing and medical care. As residents in nursing homes often are frail and tend to have complex medical problems, an unplanned hospital visit could be a physically and mentally stressful experience. In addition, it may entail risks for patient safety, because of the implications for continuity of care and related difficulties in ensuring that residents will receive correct medical treatment and nursing care. One national goal for nursing home residents is that unplanned hospital visits should be avoided if they are not medically justified. However, both national and international studies have reported a high proportion of hospitalization and use of the ED among older people in general and nursing home residents in particular. Therefore, decreasing the number of transfers of older persons to hospital from nursing homes has been an important policy goal in Sweden for several decades.

According to a report from SALAR in 2008 (107), the number of unplanned transfers of persons 80 years or older to hospital varied across different regions in the country, although the reasons for these transfers were not reported. At this time, the research was sparse on factors in nursing homes that could explain the rate of transfers to hospital. In a region with a high rate of unplanned visits by older people to the ED, we carried out an exploratory study, interviewing RNs about their experiences of decisions on transfers and of communication between different care settings. This first study, together with the aforementioned report from SALAR, clearly showed the need for further studies on the medical reasons for transfers to ED, the organization of care in nursing homes, and to explore GPs' experiences of being medically responsible for nursing home residents.

Aim

The overall aim of the present thesis was to describe factors related to transfers of older people between nursing homes, ED and hospital care.

Study I

The aim of the study was to investigate hospital and nursing home RNs' experiences of coordination and communication within and between care settings when older people are transferred from nursing homes to hospital and vice versa.

Study II

The aim of the study was: 1) to examine the frequency of and reasons for transfer from nursing homes to the ED, whether these transfers led to admission to a hospital ward, and whether transfer rate differs as a function of type of nursing home provider, 2) to identify the frequency of avoidable hospitalizations as defined by SALAR and 3) the frequency of re-transfer to the ED, re-hospitalization and mortality within a 30-day period after transfer to the ED.

Study III

The aim of the study was to explore factors in the organization of nursing homes that could explain differences in the rate of transfer of residents from nursing homes to EDs.

Study IV

The aim of the study was to describe GPs' experiences and perceptions of being the principle physician responsible for a nursing home.

Methods

Design

An overview of the conducted studies is presented in Table 1.

Table 1. Design, data collection sample and data analysis of Studies I-IV.

Study	Design	Data collection	Sample	Data analysis
I	Descriptive	Focus group discussion	Registered nurses (n=20)	Qualitative content analysis
II	Retrospective descriptive	Structured review of electronic healthcare records	Residents (n=431) living in nursing homes, in one municipality, transferred to ED (n=594)	Descriptive and comparative statistics
III	Explorative, descriptive	Structured review of patient records. Semi-structured interviews.	Registered nurses (n=11) Review patient records (n=410)	Qualitative content analysis. Descriptive and comparative statistics
IV	Descriptive	Semi-structured interviews	General practitioners (n=15)	Systematic text condensation (STC)

Settings

The studies in the thesis took place in a municipality in central Sweden. At the time of the study period, the municipality had 32 (Study I-III) and 31 (Study IV) nursing homes. A university hospital with an ED is located in the municipality.

The nursing home was staffed by assistant nurses and nurse's aides at all hours. The RNs were on duty in nursing homes from 7 a.m. – 4 p.m. on weekdays and at one nursing home RNs were also working on weekends during daytime. The RN is the sole medically responsible person employed at the nursing home. During the evenings, nights, and weekends, on-call RNs

are responsible for all emergency calls and visits when there is no RN present. The assistant nurses and nurse's aides could call the RN on call when needed.

During the daytime on weekdays, a GP was a medical consultant to each nursing home during day time. There is also a GP on call during the evenings, nights, and weekends. The GPs, responsible during day time, were also responsible for medical care plans, here referred to as ACPs. According to local municipal guidelines, the ACP should include discussions and decisions about illnesses/medical problems, other treatments/care measures, rehabilitation, care goal and special requirements. According to local municipal guidelines, a GP should be contacted before sending a patient to the ED. A written referral note should accompany the patient, together with a medication list and healthcare record.

Ethical considerations

In Sweden, a law on ethical examination of research on humans has been in place since 2003 (108). According to the law, some research projects must obtain approval from an ethics committee before the research can begin. Research involving the following must obtain approval: sensitive personal data; physical encroachment on a research subject; research whose method is aimed at influencing the research subject either physically or mentally; or research involving a clear risk of harming the research subject physically or mentally.

The law on patient data (109) regulates how patient records are to be kept and who has access to them. The law states that the primary aim of patient records is to promote safe care of good quality. Moreover, it states that patients records also serve as a source of information for, among other things, follow-up and development of care activities and research.

Ethics committee approval was sought for Study II because it involved examination of patient records, which can be viewed as a violation of personal integrity. Because the study was retrospective in nature and several persons in the study group were multi-diseased, some with dementia or cognitive failure, it was considered difficult to obtain informed consent from these individuals to examine their records. It was determined that some persons would die before consent could be obtained, and in such cases relatives would have to be asked to give their consent. Another determination was that obtaining consent from patients or relatives would lead to high attrition rates, thus negatively affecting the study's scientific value. Permission to perform the study was received from the local ethics committee (Reg. no. 2009/411). Only data relevant to the study were collected from the records, and all data were de-identified.

Study I and IV are interview studies with nurses and GPs, respectively. Given that no sensitive personal data were collected and that the questions posed were not sensitive in nature, no ethics committee approval was sought; moreover, approval was not required by law in these cases. For Study I the concerned department directors at a university hospital and department directors at community nursing homes were informed and gave permission to interview RNs. For Study IV, the primary care director in the county council and the private primary healthcare centers approved the study.

For Study III, the managers of the selected nursing homes were approached and asked whether they would permit the study to be conducted at their nursing homes. Study III included data from interviews with nurses and data on the organizations. Here too it was determined that no sensitive data were collected and that the questions were not sensitive in nature, as well as that the law did not require formal approval from an ethics committee. For these reasons, no such approval was sought. The primary ethical consideration was to not expose the identity of the residents, RNs or nursing homes. Efforts were made to ensure that the researcher could not see the healthcare records or computer screen during collection of the data, which were: existence of ACPs and nursing care plans as well as how up to date they were. For this reason, the RNs at the nursing homes reviewed the patient records and gave the researcher the data.

In all research, it is of great importance to follow ethical rules even if formal permission from an ethics committee is not required. Therefore the studies were performed in accordance with the Declaration of Helsinki (110), and the recommendations for research ethics in Sweden were followed (111). Each RN in Study I and III and GPs in Study IV received verbal and written information about the study they participated in and gave their informed consent. The participants had the right to withdraw from the studies at any time. All data were treated confidentially.

Besides the ethical rules stated in law and international declarations, some scientific journals have ethical recommendations. The International Committee of Medical Journal Editors (ICMJE) is a group of general medical journal editors and representatives of selected related organizations who work to improve the quality of medical science and its reporting. ICMJE had published recommendations for the conduct, reporting, editing and publication of scholarly work in medical journals. The recommendations are intended for use by authors who submit their manuscripts for publication in ICMJE member journals, but many non-ICMJE journals also use the recommendations (112). The recommendations include that authors should indicate whether the project has been examined by an ethics committee or, if no formal ethics committee is available, whether the research is in accordance with the Helsinki Declaration. Nursing journals, for example the Journal of Advanced Nursing, also have recommendations that include that the research should be in accordance with the standards laid down in the Helsinki Decla-

ration (110) and that informed consent should be obtained from participants (113). Study I and the submitted manuscripts II and IV have followed the recommendations stated by the respective journals, in addition to the regulations described above.

Study I

Study sample

Sixteen department directors at a university hospital and eight department directors at municipal nursing homes in the same city were informed about the study and asked to help recruit one RN for participation in a focus group discussion. The inclusion criteria were involvement in issues of patient transfer between the hospital and municipal care settings and a willingness to participate in a focus group discussion. A sample of 14 RNs (13 female) from the hospital setting and six RNs (5 female) from nursing homes participated.

Data collection

Three focus group discussions were conducted. In the first discussion, seven hospital RNs from geriatric and acute care wards participated. In the second discussion, seven hospital RNs from oncology, neurology, thoracic, surgical and orthopedic wards participated. In the third discussion, six RNs from municipal nursing home participated. Nursing home RNs and hospital RNs were not included in the same focus group sessions, the aim being to create a sense of security and open atmosphere. Each discussion lasted between 60 and 90 minutes and was tape recorded and transcribed verbatim. A moderator, also an RN and researcher, was involved in guiding and encouraging the discussion. A discussion guide was used, and the following topics were covered: experiences of coordination and communication when older persons are transferred from nursing homes to hospital; experiences of coordination and communication when older persons are discharged from hospital to nursing homes; participants' perceptions of their role and of how their workplace functions when older persons are admitted to and discharged from hospital; participants' thoughts about how nurses from the other care settings might perceive the functioning of their own workplace when older persons are admitted to and discharged from hospital.

Data analysis

The data were analyzed using content analysis, which allows the researcher to draw conclusions based on a written text through identification of charac-

teristics in the text (114). The analysis was conducted as follows: 1) The transcribed text was read several times to get an overview, provide a sense of the whole and generate ideas about how to analyze the text in more detail (115). 2) Passages and sentences relevant to the study aim were identified. 3) These passages and sentences were grouped into themes, in which agreement and differing opinions, either within a group or between groups, were reflected on the context of the conversation. 4) Finally, the themes were refined, clarified, condensed and organized (116).

Study II

Study sample

At the time of this study, 23 of the 32 nursing homes in the municipality were run by private for-profit providers, seven by public providers and two by private non-profit providers. The total number of beds at the nursing homes at the time of the study was 1420.

The inclusion criteria were: residents living in one of the 32 nursing homes in the Swedish municipality, age 65+, with hospital electronic healthcare records (EHR) including documented transfers to the ED during the nine-month period, January to September, 2010. The subjects were identified through the municipal administrative register and matched with patient data in the ED to include all individuals who had been transferred to the ED from their respective nursing homes.

Data collection

The data were collected by studying the hospital/ED EHRs of all residents transferred to the ED from their respective nursing homes. For each subject, the variables collected and written on a structured, specific application were: age at transfer, sex, nursing home, staff involved in decision to transfer, date and reason for transfer to hospital, admission to a hospital ward (yes/no), number of days spent in hospital, death at hospital or at the nursing home during a period of one month after referral/discharge from hospital and the patient International Classification of Diseases version 10 (ICD-10) code at discharge from hospital (117). Data on reason for transfer were collected from the scanned nursing home referral note in the EHR at the ED. Referral notes existed for 389 (65% of 594) transfers and they were written by 335 RNs (86% of 389), by 37 GPs (10%) and by 17 other staff (4%). The scanned nursing home referral notes were missing in 35% (n=205) of the EHRs. The reason for transfer is therefore based solely on the GP documented complaint in the EHRs at the ED.

Data analysis

The statistical program IBM SPSS statistics version 20 (118) was used for statistical analysis. The data were divided into: 1) all transfers from nursing home to the ED and 2) individual-level data on transfers from nursing home to ED, as several individuals had been transferred more than once. The data were analyzed using the statistical program IBM SPSS statistics version 20 and are presented using descriptive statistics and non-parametric analyses. All symptom descriptions, i.e. complaints according to the ED physician's report, were listed and grouped into categories. These categories were matched with ICD-10 codes (117). Avoidable reasons for hospitalization, according to SALAR (17), are: anemia, asthma, diabetes, congestive heart failure, hypertension, chronic obstructive lung disease (COLD), angina, bleeding ulcer, diarrhea, epileptic seizure, inflammatory diseases of the female genital organs, kidney infection and ear, nose and throat infection. These were identified using the ICD-10 code and reported in the patient's EHRs at discharge. Each nursing home's proportion of transfers to the ED was calculated by dividing the number of transfers by the number of beds. Mann-Whitney U-test, two-tailed (119), was used to compare the ratio of transfers across private for-profit, private non-profit and public providers. Before the analysis, the three forms of eldercare were divided into two groups based on whether or not the enterprises are intended to make a profit: 1) public and private non-profit providers versus 2) private for-profit providers. A p-value of 0.05 was chosen to indicate statistical significance.

Study III

Study sample

At the time of this study, 23 of the 32 nursing homes in the municipality were run by private for-profit providers, seven by public providers and two by private non-profit providers. Based on the results from Study II, the nursing homes with the highest versus lowest frequency of such transfers were identified. The five nursing homes with the highest transfer rates to ED, i.e., number of transfers to the ED during a 9-month period/number of beds (range 0.66-1.03) and the six nursing homes with the lowest rates (range 0.00-0.26) were chosen for the study. To ensure that the two groups of nursing homes (high vs. low transfer rate) were comparable, nursing homes mainly specialized in psychiatric or dementia care were not included in this study. Of the 20 RNs employed at these 11 nursing homes, the RN (n=11) with the longest work experience at each workplace was selected for an interview, because these RNs were expected to be able to provide more information and because a number of the RNs had very little experience.

Data collection

The data were collected from November 2011 to March 2012. The quantitative data collected covered the following: staffing, care philosophy (yes/no), existence of ACPs updated within the previous year, and nursing care plans as well as how up-to-date they were and the availability of ACPs. Data on RNs' education and years of work, the medical equipment in the nursing homes, and type of medical journals (electronic or paper) were also included. Data on staffing were received from an official report from the City (120). The facilities descriptions on the nursing homes' websites were read to establish whether they expressed any kind of care philosophy. Data on number of ACPs and nursing care plans were collected during on-site visits, and registered at a meeting with the RN at each nursing home. The RNs reviewed the records and the author recorded the information from the RN on a study-specific form, for the author anonymous and coded, including the date of latest ACP and presence of a nursing care plan. Semi-structured interviews were performed by the author to collect the qualitative data. The interviews covered the following topics: planning and organization of nursing care in the nursing home, medical support and equipment provided in the nursing home, and philosophy of care in the nursing home.

Data analysis

Quantitative data were analyzed using the statistical program IBM SPSS statistics version 20, presented using descriptive statistics and analyzed using non-parametric tests (118). For comparison between groups (*high vs. low* transfer rate), chi-square analysis was used to compare dichotomous variables, and Mann Whitney U-test (two-tailed) was used to compare continuous variables. The interviews were analyzed by means of basic content analysis, as described by Weber (114).

Study IV

Study sample

The inclusion criteria were: GPs who had an assignment with a nursing home. Purposive sampling (121) – based on sex, age, workplace, years of professional experience, years of being responsible for a nursing home – was used to increase the likelihood of variation in the descriptions. There were 8 male and 7 female GPs, between 38-70 years old, employed as GPs between 2 years and 30 years at the healthcare center, and as a GP for a nursing home between 1 month and 14 years. At the time of the study, there were 26 healthcare centers being run by public providers and 22 by private for-profit providers. Not all of them assigned to a nursing home.

Data collection

Semi-structured qualitative interviews were performed from August to October 2014 by the author and covered the following topics: GPs' experiences and perceptions of: (i) the assignment as a GP responsible for a nursing home; (ii) the advance care plan (ACP) and out-of-hours support; and (iii) the care provided in nursing homes. The interviews were conducted in a quiet room, either at the GP's workplace or at the university. Each interview lasted between 30–90 minutes, was digitally recorded and transcribed verbatim by the author.

Data analysis

The interviews were analyzed using systematic text condensation, as described by Malterud (122). The method involved the following: (i) thorough reading of all the material to obtain an overall impression; (ii) identifying meaning units, representing different aspects of participants' experiences and perceptions of their role as GPs in nursing homes and coding of these units; (iii) condensing the contents of each of the coded groups; and (iv) summarizing the contents to form categories, in order to achieve an overall description of GPs' experiences and perceptions. Three of the research team read all interviews. The complexity of the ways in which the participants experienced their role as GPs in nursing homes was thoroughly discussed. The research team participated in the subsequent elaboration of categories and interpretation of findings.

Results

Study I

The major themes that were identified in the focus group were as follows: 1) transfer and admission; 2) discharge and return to nursing home; 3) improving collaboration and quality.

Transfer and admission

The results showed that the nursing home RNs found it difficult to determine whether the older person should be referred to hospital from the nursing home when his/her health deteriorated. Factors perceived to facilitate decisions were general recommendations from the National Board of Health and Welfare (regarding, e.g., suspicions of fractures, in which case patients are to be transferred to hospital) and being able to consult a dedicated and accessible physician. GPs' accessibility varied across nursing homes; however, most RNs felt they could reach and consult a GP over the phone most of the time. Some RNs reported receiving support in their decisions not to transfer older persons to hospital if the nursing home had a palliative approach, or if documented ACPs existed. These nurses stressed the importance of maintaining up-to-date ACPs and of ensuring that on-call RNs read and followed these plans. Sometimes, family members wish to send their older relative to hospital because they believe the hospital can provide better care. The fact that there is no RN on duty in the evenings, nights and weekends was also mentioned as influencing the decision to send residents to the hospital.

Communication between hospital and nursing home RNs takes place through an electronic information system to which all healthcare professionals at the hospital and nursing homes have access. Hospital RNs requested improved education and better guidelines from the municipality regarding which information the RNs are expected to provide in this system. In order to feel secure in terms of information exchange, they preferred speaking directly with the nursing homes RNs.

Discharge and return to the nursing home

Although the physicians have formal responsibility for deciding when patients are fully medically treated, the nurses reported finding themselves with

great responsibility in practice. RNs had experiences in which such decisions had led to disputes between the hospital and nursing homes. Emergency ward RNs reported that bed shortages and long waiting lists led to difficult situations when planning patient discharge. They reported often trying to stop premature discharges or having to carry out discharges that were not fully prepared. According to nursing home RNs, many older persons return to the nursing home without satisfactory care planning. Patients frequently arrive late in the afternoon when there is no RN present. In addition, medications were often missing or inaccurate.

Improving collaboration and quality

Hospital RNs wished nursing home RNs would keep older people at the nursing home more often. They said that older patients were sometimes sent to the hospital unnecessarily because the nurse was not able to contact a GP for consultation. Some hospital RNs also believed older patients were sometimes transferred to hospital owing to nursing home RNs' fear of being reported. The hospital RNs had suggestions for quality improvement at nursing homes, such as increased staffing of RNs during evenings, at night, and weekends. This would improve conditions for continuity of care and make it easier to offer less complicated medical treatments, such as drip-feed.

The nursing home RNs were concerned about how older people were treated at the hospital and that basic nursing practices were sometimes neglected. Nursing home RNs wished that hospital RNs would take greater responsibility in the discharge process and prevent premature discharge of older people. The nursing home RNs would like the hospital RNs to be better informed about two important conditions at the nursing home: there are no medical supplies and no RN is on duty after 4 p.m. or at weekends. Therefore, it is vital for patient safety that older persons return to the nursing home during the day when the RN is present. Both hospital and nursing home RNs suggested increased collaboration so that they could better understand each other's work situation.

Study II

Transfers

The frequency of transfers to the ED was 594 during the time of the study. On average 2.28 transfers were registered per day during weekdays (range 0-7, SD 1.47) and 1.96 during weekends (range 0-5, SD 1.31). Thursday (M 2.62) was the peak referral day and Saturday had the lowest transfer rates (M 1.95). No seasonal differences were found. Of the 594 transfers, 375 (63%)

resulted in a hospitalization, i.e. the resident was admitted to a hospital ward. Average length of hospitalization was 7.12 days (range 1-56, SD 6.4).

The nursing home's proportion of transfers to the ED during the study period ranged between .00 to 1.03 transfers/bed. The transfer rate was higher for the private for-profit providers than for the public/private non-profit providers (Md .49 range .10-1.03 vs. Md .23, range .00-.63; p .009).

Falls and/or injuries including fractures, respiratory symptoms, gastrointestinal complaints, CNS symptoms and general deterioration were the most frequent conditions that led to patients being referred to the ED; see Table 2.

Individuals

During the study period, 431 residents (women n 299, 69%; age M 87.0, SD 7.2, range 65-103) were transferred from their respective nursing homes to the ED, and transfers occurred in 31 of the 32 residential facilities during the study period (30% of n 1420 beds). The transferal of residents to the ED occurred one to seven times each (M 1.37, SD .72). Of the 431 residents transferred to the ED for the first time during the study period, 277 (64%) were admitted to a hospital ward and 154 (36%) returned to the nursing home after evaluation at the ED. Of the 375 residents admitted to a hospital ward, 16% met the criteria for potentially avoidable hospitalization, as defined by SALAR.

After having been discharged from the ED or hospital, 31 (7%) residents were re-transferred to the ED within a 30-day period from the first ED visit. Twenty-two of the 31 residents were hospitalized on the basis of their complaint; for 21 of them this was the second hospitalization within a 30-day period. Their average age was 86 years. Twenty had 3-4 diagnoses each and 19 were women. Ten were re-hospitalized for the same symptoms they presented with on the first hospitalization occasion. Of the 10 re-hospitalized residents, three were hospitalized for a diagnosis described in SALAR as avoidable hospitalization.

Of the 431 residents, 66 (15%) died within one month after transfer to the respective nursing homes after being discharged from the hospital. Of the latter 34 residents, 17 died within two weeks and 17 within a month after transfer to the ED.

Table 2. Frequency of transfers to Emergency Department (ED), reasons for transfer to ED, proportion of admittance to ward for the respective reasons and complaints

Transfers		Complaints at ED	Admittance to ward		Readmitted within 30 days after discharge from ward	
n	%		n	%	n	%
147	25	Falls and/or injuries incl fractures	56	38	6	11
67	11	Respiratory symptoms	62	93	7	11
60	10	Gastrointestinal	40	67	3	7
55	9	CNS symptom	40	73	4	10
51	9	General deterioration: weakness	44	86	3	7
50	8	Infection UVI, fever, sepsis, pneumonia	50	100	3	7
46	8	Pain, not specified	14	30	4	28
37	6	Cardiovascular symp- toms e.g., DVT, heart failure, shock	22	59	2	9
32	5	Urinary problems (not UVI related) KAD, hematuria, urinary retention	14	44	3	20
26	4	Miscellaneous e.g., emergency cases, anemia, abnormal lab	19	73	4	21
21	4	Chest pain	13	62	0	0
2	0.3	Cardiac arrest	1	50 ¹	1	100
594		Total	375	63% of N=594 transfers	40	11% of N=375 admitted 1 st transfer

¹one patient died at the ED

Study III

The results are presented separately for the two nursing home groups identified: those with *high* vs. *low* transfer rates to the ED. Hereafter, the nursing homes will be referred to as belonging to the *high* or *low* group.

Quantitative data

All of the nursing homes in the *high* group were private for-profit, while in the *low* group there was only one nursing home run by a private for-profit provider, the others being public/private non-profit providers. There was no difference between the *high* and *low* group with regard to nursing home size (number of beds) or staff/resident ratio (RN/resident; assistant nurse/resident ratio).

In the *high* group, one of five RNs had further education as a specialist nurse and one of five had completed dementia care training. All RNs in the *low* group had dementia care training and three of the six were specialist nurses in psychiatry, geriatric nursing or medical and surgical nursing with long-term care. There was no significant difference between the groups with regard to years of work as an RN. However, the nurses in the *low* group tended to have worked longer as an RN (Md 20 vs. 7 years; $z=1.8$; $p=0.07$). RNs in the *low* group had worked more years in eldercare than those in the *high* group (Md 14.5 vs. 2.5 years; $z=2.8$; $p<0.01$).

Nursing homes in the *high* group had fewer updated ACPs (47% of 219) than did nursing homes in the *low* group (63% of 191; $\chi^2=12.6$; $p=0.00$). There was no significant between-group difference with regard to existing nursing care plans.

Qualitative data

Receiving new residents and organization of residents' care

All RNs were of the opinion that new residents should move into the nursing home on weekdays, Monday to Friday, when the responsible RNs are present. Some RNs felt it was problematic when the on-call RN did not follow the resident's ACP in an acute situation. According to the RNs, the on-call RNs often lacked time to read the medical records and were, thus, not familiar with the patient situation. This led to unnecessary transfer to the ED. At some of the nursing homes in the *high* group, the RNs had difficulty finding the ACPs in the computer system. All RNs described a lack of consensus regarding how documentation in the ACPs and nursing care plans should be written and stored at nursing homes in a way that would allow the on-call RNs to easily find them. In one nursing home in the *high* group, the RN said they prioritized the frailest residents receiving their ACP first, while other residents had to wait. In one of the nursing homes, included in the *low* group,

the RNs reported handling all drug administration when they were on duty in the daytime, Monday to Sunday. In the others, the RNs had delegated the task to nursing assistants.

Medical support from GPs

There were no differences between the nursing home with *high* vs. *low* transfer rates regarding medical support. In general, one or two GPs were linked to each nursing home depending on the number of residents and size of the nursing home. Rounds occurred once or twice a week, depending on the number of beds in the nursing home. Two RNs, representing both groups, had experienced fewer visits from GPs' during the past year. According to these two RNs, there was a lack of continuity and there was not enough time to establish new or to revise old ACPs during the weekdays with the GPs. The other RNs were satisfied with the medical support from the GP and mentioned that their GP would make an extra visit when needed.

Palliative care

All RNs reported that their nursing home had local guidelines for palliative care and that they adhered to them. RNs described that palliative planning and involved family members are necessary in order to avoid acute transfers to the ED. All RNs talked about the importance of providing good palliative care. The resident should not experience any pain, anxiety or respiratory difficulties. In addition, medications for these symptoms should be available for each resident in the nursing home. They described the importance of having an up-to-date ACP for all residents so that measures to be taken when a resident's health deteriorates are already decided. In the *high* group, one RN mentioned that most residents wish to be transferred to ED in the event of deteriorated health. In the *low* group, one RN mentioned that most residents wish to stay at the nursing home instead of being transferred to the ED. All RNs and GPs in one nursing home had received special training in palliative medical care. It was reported that this training had resulted in more consensus and that GPs prescribed a standard set of medications when a resident was in the palliative phase.

Care philosophy

Not all RNs, three from respective group *high/low* total six, were familiar with the care philosophy of their nursing home. The RNs were not able to describe a particular care philosophy or theory as a foundation for their nursing. They instead talked in general terms about the resident's right to self-determination and having respect for the individual. They also reported

thinking about their own preferences in the event that one of their own relatives should need care at a nursing home.

Study IV

The analyses resulted in two categories: 1) The content of the work of a GP who is principally responsible for a nursing home and 2) Essential conditions for being a GP who is principally responsible for a nursing home. Further subcategories were: Medical assessment, Advance care planning, Medical treatment, Palliative care, RNs and other staff, Medical equipment and supplies, Informatics, Out-of-hours and on-call services, Organization of elder-care and desires for improvement.

The content of the work of a GP who is principally responsible for a nursing home

The GPs explained that most of their work involves medical assessments of the residents and work related to assessments, prescription of medicine and documentation in the health record. Assessments are carried out when a new resident is enrolled or a resident's health status changes. In this connection, the GPs reported that RNs play an important role, because RNs select which residents need a medical assessment based on their knowledge about the residents' status. The GPs described how assessment of older persons' health takes a great deal of time, is a demanding task and can be very complex. They reported that it is, naturally, important to have the whole picture of the person's health status in all patient groups, but that this is more important with older persons, because they often have more than one disease and diseases interact.

The GPs thought the collaboration with the RN worked satisfactorily. When the RN detects an acute health problem with a resident, the RN discusses this problem over the phone with the GP, who makes a kind of immediate assessment based on the RN's assessment and description of the resident's symptoms. Health issues such as suspected infections, for example, pneumonia, UVI or diabetic issues such as blood sugar levels, are dealt with over the phone by the GP, who prescribes tests and/or changes in medication. The GPs generally found it difficult to fit in acute assessments in nursing homes, as these could conflict with patient appointments at the healthcare center.

All GPs found the ACP to be important for treatment, because it gives structure both to the treatment and to the overall picture of the situation. According to the GPs, meeting with the resident's family members and the resident is of great importance to the resident's care. The outcome of these

meetings is to establish objectives and medical treatment levels together with the resident and family members. The GPs described how one needs to have foresight and get to know the resident in order to plan an ACP that includes a plan for care when the resident's health status deteriorates. Having discussed level of care and the degree of active treatment the resident would like to have in case of deteriorating health facilitates future decisions. GPs stressed that having reached consensus on level of care makes planning care easier and gives the resident and family a sense of security.

The GPs reported that if the resident is not able to participate in the ACP discussion, it is important that family members and nursing staff in addition to the RN participate in the ACP meeting. Some GPs described using a template with questions about healthcare at the end of life in the ACP meeting with family members. The GPs believed it is good for families have the opportunity to prepare themselves mentally for this question before the time comes. There sometimes occur problematic situations when there is no continuity in nurse staffing in the nursing home, and when the GP has not written the ACP or established a relationship with family members. Due to great workload, arrival of many new residents or changes in residents' health status, it is difficult to prioritize which residents need assessments. For these reasons, the ACP is sometimes not up-to date.

Medical treatment

The GPs reported that older persons who have recently moved to a nursing home generally have long medication lists. The GPs stressed the importance of their thoroughly examining and modifying new residents' medication lists. According to the GPs, it is not unusual for new residents' energy levels to increase and their status to improve after modification of their medication lists. The GPs described that it is sometimes difficult to decide on the level of treatment at the nursing home and on how active they should be in treatment. Family members are sometimes very uncertain about whether their relative is receiving the right care and enough care at the nursing home. The GPs explained how they carefully discuss what kind of care they can provide for the older patient and what family members can expect from the nursing home. The GPs explained how important it is to take the time needed to inform family members about what kind of care the nursing home can provide for their family member on site and to discuss in what cases it might be necessary to send the resident to the ED. Some GPs described that building consensus with the resident and family is fundamental to planning good medical treatment and nursing care.

Some GPs reported that whether or not the resident should be exposed to the stress associated with hospital care must be taken into consideration; one has to consider what the hospital can be expected to do about this specific health problem. Further, a visit to the ED can make a difference and improve

the resident's health. The GPs explained that when the medical resources are not sufficient or when treatment at the nursing home fails, the resident is referred to the ED; patient safety must never be compromised. It is important to involve the family in the discussion of level of care and possible referral to the ED. Some GPs also explained that staff members are often afraid of making mistakes and being reported by families, which can result in referrals that benefit no one.

Palliative care

Some GPs described the palliative policy, which states that residents should not experience any pain, anxiety or respiratory difficulties. Further, nursing homes are well equipped for end-of-life care and medications for these symptoms should be available for each nursing home resident. The GPs reported that RNs are allowed to give pain management with morphine, as well as injections with sedatives and diuretics, at the nursing home. All GPs meant that nursing homes are places where older persons can end their life with dignity. The GPs explained that earlier discussions with both the resident and family are of importance, as is having a plan in the ACP. However, some GPs highlighted that the level of palliative care differs between nursing homes and that palliative care is also available for persons living in their own home. GPs also stressed that persons living at home have access to a mobile palliative team, which can give more advanced medical treatment in the palliative phase than can be offered at the nursing home.

Essential conditions for being a GP who is principally responsible for a nursing home

Skilled RNs and other staff

All GPs stressed that it is to a high degree the RNs who are the key persons in the care of nursing home residents. On the whole, the RNs are competent, skilled and experienced. They described that RNs ask questions, raise issues and through assessment determine who should have a medical evaluation. The GPs viewed RNs as discussion partners and are dependent on RNs' medical knowledge about the residents as well as on the observations made by nursing staff, because the GPs are only there during the rounds. The GPs discussed the importance of RNs being comfortable with assuming that responsibility and having solid opinions about what is important.

When the ordinary RN is not on duty or when a new RN arrives, this results in an increased workload for the GPs. They stressed that RN staffing affects GPs' work conditions. The GPs claimed that good care is based on having stable RN staffing and continuity of care. It is of no help if RNs come in from a staffing agency for a week; they may well be skilled, but if they do

not know the residents it is difficult for them to do good work. The result of lack of continuity in RN staffing at the nursing home is less planning of care, and thereby no ACPs or no updated ACPs. Some GPs had experience of nursing homes that had problems recruiting RNs, too few RNs or high turnover of RNs. The GPs described this as having a negative impact on the quality of medical care and residents' safety. Some GPs felt the RN-to-resident ratio was too low. Nurses are overloaded with work, and there is a need for standardization of RN staffing in relation to nursing home patients, just as there is for GPs.

Medical equipment and supplies

GPs described that nursing homes have a limited supply of medicines and that this is a practical concern for RNs, who often end up borrowing medicines from another resident to solve the problem. Other problems identified in nursing homes are that it is not possible to take acute blood samples on weekends and that there are no possibilities to give oxygen therapy. The GPs felt that the situation would be better if more medical equipment were available in nursing homes, such as intravenous therapy, oxygen and other inhalation therapies, as well as better possibilities to take blood samples. Further, most medical equipment requires RN-level competence, and thus having and using additional equipment also entails RNs working evening and weekend shifts. The GPs stressed that hospital staff should be more aware of the medical resources available at nursing homes and not give prescriptions for treatments that are not possible to carry out there.

Informatics (IT) and on-call services

All GPs described problems related to healthcare records. They meant that if the intention is to decrease unnecessary referrals to the ED, updated healthcare records must be available for RNs and on-call RNs and GPs. The RNs have to rely on the GP delivering discharge notes from the hospital on a weekly basis and on GPs' medical notes from the healthcare record. RNs have one computer system, the GPs and hospital have another, and some private healthcare centers have a third. No one has access to the others' systems.

Most GPs felt it was a problem that on weekends at most nursing homes there is usually no RN on duty. Some of the GPs claimed that the on-call services did the best they could under the circumstances, but that on-call services are staffed by physicians with different levels of competence. Problems recognized with on-call services were failure to follow recommendations for a resident. On-call RNs or GPs sometimes do not read the healthcare records to find out what the plan is for the resident or they may have difficulties finding the information in the EHR. Consequently, deci-

sions are sometimes made that are not in line with the resident's and family's wishes and, thus, sometimes a resident is sent to the ED contrary to what is recommended in the ACP.

Organization of eldercare and desires for improvement

The overall view of all GPs was that care of nursing home residents is characterized by inadequate resources and staffing. Some GPs reported that eldercare in Sweden is generally neglected and that the aspect of quality has been lost. They highlighted the importance of having highly skilled RNs and a sufficient number of them in the nursing home as well as the importance of the entire nursing staff having good skills. Further, the GPs would like to see more treatments taken care of at the nursing homes, despite the fact that the resources and conditions for this are lacking. Areas of improvement mentioned by GPs were the collaboration between hospital and municipal concerning treatment of older people and improved discharge planning to avoid readmitted residents. Hence, they stressed that intermediate care wards with the aim to offer post-acute treatment for older people are needed. An area that all GPs found problematic and in need of improvement was that of information and communication. The GPs argued that Sweden needs a national standard for EHRs and that the various systems need to be changed so that they can communicate with each other.

Discussion

Summary of findings

The findings in this thesis indicate that organizational factors could, in part, explain differences in transfer rates of older people between nursing homes and hospital care. Organizational factors with potential impact were RN staffing, different organizations for RNs and GPs, ACPs, RNs' education, the on-call services, nursing homes' medical equipment and the health record systems. All mentioned factors are important to the medical care for older persons. These factors will be discussed below under the headings for Study I-IV.

Study I

Findings from Study I revealed a lack of communication and coordination between nursing home and hospital settings when patients are in transition. Furthermore, the communication content was not always satisfactory, and the data in the EHR were not used to their full potential. In cases where the nursing home had a palliative approach and/or used ACPs, RNs felt supported in their decision not to refer older persons to hospital. ACPs, regularly updated, are important individual guidelines for how to treat patients' acute illnesses in nursing homes and for making decisions about the need for transfers of patients to the ED (65). The decision-making processes is complex for nurses (123), and the important factors include knowing that a physician can be contacted and having trust in the organization (124). Further, the RNs (Study I) pointed out the importance of family members being involved and informed about what kinds of medical care can be offered at the nursing home.

According to the RNs, older persons are unnecessarily transferred to and prematurely discharged from hospital owing to organizational factors. The hospital RNs stressed that nursing home RNs should try to keep older patients in the nursing home to a greater extent. They said that many older persons were sent to hospital due to a lack of communication between nursing home nurses and the GPs. To reduce transfers from nursing homes, Tena-Nelson et al. (125) studied the effect of a program (the INTERACT NY) including, e.g., SBAR for improvement of communication, together

with the Early Warning Tool and care paths for different conditions on which to base the treatment decision. The results showed an approximately 10-27% reduction in hospital admissions depending on adherence to the program; however the reduction was not statistically confirmed. This program could be interesting to test in a Swedish setting as well. Another component of the INTERACT NY program was, e.g., a structured tool for ACPs. However, previous studies have reported that existing ACP directives are not always followed in an acute situation and that family members may influence the decision to hospitalize (86). Furthermore, standardization of the handoff process could be one way of reducing errors when patients are in transition (96).

Nursing home RNs, on the other hand, often received patients late in the afternoon, with an insufficient care plan and missing or inaccurate medications sent from hospital. In one study, most nurses and hospital providers agreed that verbal communication should occur when patients are moved between care settings, as this positively affects patient transitions (126). Both hospital and nursing home RNs suggested that increased communication and collaboration between RNs would improve their understanding of each other's work situation. The RNs stressed that a joint health record system for the hospital and the nursing home would benefit patient safety.

Study II

Findings from Study II showed that, of the 594 transfers to the ED among a total of 431 residents, 63% resulted in hospitalization. The transfer rate was between .00 and 1.03 transfers/bed and was higher for the private for-profit providers than for the public/private non-profit providers. One fourth of the transfers were caused by falls and/or injuries including fractures. The frequency of avoidable hospitalizations, e.g., congestive heart failure and COLD as defined by SALAR, was 16% among the 375 hospitalizations. Whether the transfer rates to the ED, or the hospitalization rates resulting from these ED visits, should be considered high or low can be discussed, but what may be more relevant here is to ensure that older persons receive care at the appropriate level. In accordance with our study were also found that falls 23%, in our study 25%, were the main reason for referrals as well as they were made during weekdays (77). One Norwegian study found large and significant variation in annual hospital admission rates, from 0.16 to 1.49 per bed (78).

Improved primary care in nursing homes has been found to reduce transfers to the ED (63). An evaluation study found reduced transfer rates of older people to the ED with nurse-led ED support for nursing home staff and a high level of satisfaction with this support among nursing home staff (127). It has previously been reported that nursing home patients often are hospital-

ized for preventable conditions, for instance infectious diseases and severe pressure ulcers, and that mortality rates are higher for this group (64). A recent review found that older people suffered from in-hospital complications such as pressure ulcers and delirium. In addition, there was extensive use of ED transport and healthcare resources (66).

The notion that increasing RN staffing could lower transfer rates has been discussed earlier (89, 90). In addition, nursing homes with nurse practitioners have been shown to have fewer hospitalizations (71). It has also been found that ACP and directives from GPs gave the nursing home staff confidence to care for the older person without transferring to the ED, and the importance of establishing good relationships, communication and coordination with ambulance and ED staff has been established (128). An increase in use of structured decision-making tools (125) may also help when sending residents in need of acute care to the ED and reduce unnecessary transfers. Hence, increasing staffing and competence among RNs appears to be one way of reducing transfers to the ED and hospitalizations among nursing home residents.

Private for-profit providers are relatively new among Swedish nursing homes, but have increased rapidly. In 2012, the proportion of for-profit providers increased to 76% in the Municipality of Uppsala (129). In Study II, 23 of 32 nursing homes were run by private for-profit providers, and the transfer rate was higher for this provider category than for the public/private non-profit providers. This is consistent with findings from US studies, which have also shown that the hospitalization rate is substantially higher for private for-profit providers (86, 89, 90).

Study III

Findings from Study III showed that all nursing homes with *high* transfer rates to the ED were private, for-profit providers, whereas in the *low* group only one such organization was included. Nursing homes in both the *high* and *low* group had a care philosophy, but not all RNs could account for its content. The nursing homes in the *high* group had fewer ACPs updated within a year than did the *low* group, a finding in accordance with a previous discussion (85), and ACPs can result in decreased hospital admissions (65). In addition, there was a discrepancy between what the RNs in both groups said in the interview regarding their adherence to the guidelines on establishing an ACP immediately after admission and what actually had been done, because some of the expected ACPs had not been made at all or had never been updated. It can only be speculated that the observed non-adherence to guidelines is related to lack of time in organizing and implementing ACPs.

The RNs expressed the difficulties they experienced when the ACPs are not read and followed by the on-call RNs out-of-hours. In addition, RNs

described how the outcome for the resident could be an ED visit that is contrary to the written ACP. In both groups, there seemed to be little or no consensus regarding where the documented ACPs should be stored and where the on-call RNs can find them in an acute situation. It is strongly suggested that the latest ACP be placed so as to be highly visible and easy to find out-of-hours: for example in the EHR and or in paper format.

On the basis of what is known about the risk of sending older patients to hospital for care (59, 83, 85), the findings suggest that updated ACPs serve the purpose of guiding the decision-making process when determining the level of care and avoiding inappropriate hospital admissions.

Moreover, the results of Study III indicated that none of the nursing homes had a great deal of medical equipment. It can be discussed whether access to more medical equipment could be one way of reducing unnecessary transfers to the ED. However, use of more medical equipment requires RN-level competence. Therefore, having and using additional equipment also entails RNs working evening and weekend shifts. There is some support for the notion that increasing RN staffing could lower transfer rates (89, 90). The RN staffing level has also been reported to be an important indicator of quality in hospice care (130) and in hospitals (131).

More of the interviewed RNs from nursing homes with *low* transfer rates had a specialist education and training in dementia care and had worked longer in eldercare compare to RNs in nursing homes with *high* transfer rates. In general, staff working in eldercare in Sweden have a low level of education, and this has also been found in other countries (132). Studies of Josefsson et al. (133) and Karlstedt et al. (28) regarding education levels and competence among RNs working in eldercare in Sweden showed that the majority lacked a Bachelor's degree and few had specialist training. Nursing homes employing RNs with a Master's degree have been shown to have lower hospitalization rates (71).

Heavy workload is highlighted in other studies as the main cause of stress among RNs in nursing homes (134). Having enough time to spend with patients without a constant feeling of being rushed is important to an effective RN-patient/family relationship (135). It can also be speculated that having enough time to spend with residents could improve the chances of making clinical assessments at an early stage in cases of deteriorating health, which in turn could prevent the need for acute care. It is important to achieve a change in staff in order to recruit new staff to eldercare. One of the main bases for students' future decision to work, or not to work, with older people has been described as the quality and nature of their clinical experience during clinical placements. Occasionally, students are exposed to staff shortages, outdated equipment, and lack of time for anything other than the most basic level of care, which reinforces students' perceptions that eldercare has little to offer them as a future career (53).

Study IV

In Study IV, the GPs pointed out the importance of family members being involved in discussions on what kind of medical care can be provided at the nursing home and the level of care, as such involvement gives the family a sense of security. In person-centered care, RNs work with the patient's beliefs and values, which facilitates the older person's participation in decision-making. Participation is achieved through successful communication (9). The results of Study IV indicate that ACP is an important plan for how to treat chronic illness and for descriptions of individual preferences regarding care provision. GPs also reported that it is difficult to decide the level of treatment and how active they should be in treatment at nursing homes. Furthermore, GPs highlighted that the level of palliative care could differ between nursing homes, and nursing home residents lacked access to the mobile palliative team that can give more advanced medical treatment in the palliative phase. This can be seen as inequality in care.

The GPs stressed that they are dependent on RNs and nurses aides/assistant nurses being observant when there is a change in the resident's health, and reporting any changes to the RN/GP. In addition, the GPs expressed that the RNs are competent and know which residents are in need of medical assessment or an updated ACP. The finding is in line with results from a previous study (136). However, GPs found it problematic when ACPs are not read, found or followed in an acute situation, and this has been reported by others as well (86). The GPs were concerned that the on-call RNs and GPs do not read what is planned for the patients in the EHR. The fact that the EHR system for health records in nursing homes and the system in healthcare centers are incompatible, meaning that RNs and GPs have no access to each other's notes, is perceived as an important area for improvement. This has been notified nationally; today, there is an ongoing project by the Swedish National IT Strategy for Healthcare (137), part of which involves the development of the National Patient Overview (NPO).

In general, staff working in eldercare in Sweden have a low level of education, something Sweden shares with other countries (132). In Study IV, GPs described nursing homes with problems recruiting RNs, too few RNs or a high turnover of RNs, which negatively affects the quality of medical care and increases GPs' workload due to less continuity. This is problematic, as patients in nursing homes (36, 39, 40) and in home care (37), due to their serious illnesses, are generally already associated with an high workload for GPs. A heavy workload and a less satisfactory staff relationship due to less continuity may negatively affect the care environment, both of which are important components of person-centered practice (134) and relationship-centered care, according to the 'senses framework' (53).

It is reasonable to assume that increasing the competence of staff and the minimum staff ratio for RNs would improve RNs' and GPs' work conditions

and possibly therefore also the outcome for the older person. In addition, this could also be one way of reducing transfers to the ED and hospitalization among nursing home residents. However, the existing research shows conflicting results, and there is a need for further studies (138).

Methodological considerations

Qualitative (Study I, III & IV)

Describing both the data collection and steps in the analysis is a way of establishing the quality and trustworthiness of qualitative data and analysis, as suggested by Lincoln and Guba (139). Credibility refers to people's confidence in the truth of data and interpretations of them. This was strengthened by the fact that the participants had no difficulty understanding and answering the questions. Further the co-authors, all with experiences of qualitative analysis, were involved in the data analysis, which ensures credibility. Providing a thorough description of data collection and analysis is also a way of establishing credibility. To ensure dependability (reliability), the same discussion guide was used with each focus group, and the discussions were audio-taped and transcribed verbatim. The themes/categories were identified and formulated in the course of discussions among the authors, which strengthens the conformability of the data analysis (121). The strength of Study III is that it includes both qualitative and quantitative data, which promotes better understanding of the phenomenon under study. Selection of factors to be studied was guided by previous results and the present authors' pre-understandings, but the interviews also resulted in new factors: staff members' possibility to contact the nursing home's RNs during evenings and weekends before calling the on-call RNs and the delegation of drug administration to nursing assistants.

To strengthen credibility in Study IV, participants were selected who varied in age, professional experience, geographical location of the workplace and GPs who had worked both for healthcare centers run by public providers and for private for-profit providers. The author's experiences from eldercare enabled sensitivity to the subject matter. The research team varied in their knowledge and experience of the subject matter, which can be seen as a strength in that it may have deepened and improved the clarity of the study.

The interviews in Study IV did not allow any follow-up questions due to the time limit for the interviews with the GPs. However, in retrospect the questions could have been more focused on care of the older person and remittance to the ED. The author, who is an RN with many years of experience in eldercare, performed the interviews in Study III-IV; this may raise questions as to whether some answers were taken for granted. However, this was considered during the interviews and the interviewer asked for clarifica-

tions of the RNs' and GPs' own experiences of the matter. The interviewer kept an objective view during interviews and was aware of her personal opinions and experiences.

Transferability (139) is the extent to which the findings can be transferred to other settings and groups. The descriptions of settings in the studies are of importance for the reader in evaluating whether the findings are transferable to other nursing homes and municipal settings.

Quantitative (Study II & III)

The strength of Study II is that it includes all transfers from all nursing homes to one ED in one municipality during a period of 9 months. The intention was to study transfers during all 12 months of 2010, however, the municipality implemented new guidelines, which enabled older persons to be directly admitted to a hospital without passing through the ED. For this reason, the decision was made to reduce the study period to 9 months, and thus the study period ended when this new routine began.

There are some limitations to Study II. We were not able to study the severity of illness of the older persons who were sent to the ED, or the reasons for the transfer, because in many cases the written information on the referral note was incomplete or missing. Instead, the physician-documented complaint in the medical healthcare records at the ED was used. A prospective study might have been more appropriate, with review of medical healthcare records to discover the reasons and discussions that preceded transfer to the ED. All residents would have been included, as well as information about the residents who stay in nursing homes, including deaths. There are also limitations to register studies, e.g., the staff may have unintentionally made inaccurate entries into the EHR. The time for arrival at the ED was unfortunately not possible to determine due to inconsistencies in the documentation.

In Study III the quantitative data were based on a small sample and the results should be generalized with caution. However, findings from exploratory studies such as this generate hypotheses that are useful in future studies.

Reflections on the results and final conclusions

The overall aim of the present thesis was to describe factors related to transfers of older people between nursing homes and emergency and hospital care. My reflection on this area of investigation is that there needs to be a culture-based change in attitude toward eldercare in nursing homes and that the care must become increasingly person-centered. Furthermore, older people have multiple illnesses and are in need of extensive care around the clock. To meet the increasing demands for more complex medical treatment at nursing homes and to provide high-quality palliative care, there is an immediate need for a solution to the high staff turnover, to increase RN staffing and establish standardization for RN staffing in relation to nursing home residents. The change needs to be toward being able to offer the quality medical care that is best suited to the older person. This might involve a visit from a mobile team “hospital in the home” to the nursing home and buying better and more advanced medical equipment.

These are my conclusions:

- One sixth of the transfers were considered possibly avoidable according to the criteria in SALAR. One fourth were due to falls, injuries and/or fracture, which in most cases justify an ED visit. More effort could be made to reduce the number of avoidable hospitalizations.
- The transfer rates in nursing homes run by for-profit providers were higher than for public/private non-profit providers. Some organizational differences were found between those nursing homes that might explain these results. However, the sample is small and further studies are needed.
- Better adherence to updated ACPs could enhance the care, the outcome for residents and reduce transfers to ED. The ACPs should be available and easy to access out-of-hours.
- Increasing RNs’ competence level may have a positive effect on the care provided at nursing homes, thereby decreasing transfer rates.

- Collaboration between hospital and municipal care concerning treatment of older people and discharge planning to avoid readmitted residents could be improved. The RNs in both settings need to have knowledge about each other's prerequisites for providing care.
- The IT systems for EHR are not optimal. The systems for health records in nursing homes and the system in healthcare centers are incompatible, meaning that RNs and GPs have no access to each other's notes. It is important to create possibilities for GPs and RNs to access each other's EHR systems.

Clinical implications and future research

The present thesis provides new insights into care for the older person, coordination of care and organizational factors related to transfers between nursing homes and the hospital.

At an organizational level, the present findings emphasize the importance of using ACPs to providing high quality care in nursing homes; ACPs may promote better care, improve health for older persons and reduce healthcare costs. The effect of improvements regarding the use of ACPs needs to be studied further. There is also a need to explore how family members are involved in the care, including the ACP meetings, for the older person.

More research on the topic of different providers of care, i.e. private for-profit and public/private non-profit providers, is needed, as this is a rather new phenomenon in Sweden.

There is a need for studies describing how RNs act before deciding whether or not to transfer a patient to hospital. In future research, it would be interesting to investigate on-call RNs' and GPs' views on what could help them in making assessments and decisions.

More research is needed to explore whether improved medical equipment would be of value in treating the more complex medical problems that older persons have at nursing homes. However, to make this possible, the RNs need to work shifts at the nursing homes. This would not only improve the possibility to provide more advanced medical care, it might also improve continuity in care and reduce RNs' and GPs' workloads. In addition, more research is needed on coordination and collaboration of care activities to improve care for the older person in transition between different care settings.

Further research is needed on RNs' educational levels, e.g., specialist education, which may have significance for the outcome of care for the older person.

Svensk sammanfattning (Swedish summary)

Bakgrund

En allt mer åldrande befolkning (140) innebär en ökad efterfrågan på framförallt kommunal vård och omsorg men även på medicinsk hälso-och sjukvård (3). Många äldre är 80+ när de flyttar till ett äldreboende, och de äldre är ofta multisjuka och har komplexa medicinska problem (141). Ett nationellt mål för äldre boende på äldreboende är att oplanerade sjukhusbesök ska undvikas om de inte är medicinskt motiverade (43). Trots det har ett flertal internationella studier visat en hög andel besök till akutmottagning och sjukhusinläggningar bland äldre på äldreboenden med motiveringen medicinsk indikation för remitteringen (70, 72, 74, 75). Det finns begränsad forskning inom detta område i Sverige och om olika faktorer i organisationer som kan förklara remitteringsgraden till akutmottagningen. Sjuksköterskor på sjukhus har rapporterat att utskrivningsprocessen är svår att organisera (94, 99) och att det finns brister i kommunikation mellan landsting och kommun och vice versa (94, 99, 100). Läkare rapporterar att arbetsbelastningen med att behandla svårt sjuka äldre personer är tung i kommunen (37), och tiden det tar i anspråk för medicinska bedömningar har diskuterats (34).

Syfte

Övergripande syfte med denna avhandling var att studera faktorer relaterat till remitteringar av äldre personer från äldreboenden till akutmottagning och sjukhus.

Metod

Delarbete I: syftade till att undersöka sjukhus sjuksköterskor och äldreboende sjuksköterskors erfarenheter av samverkan och kommunikation mellan äldreboende och sjukhus. Metoden var beskrivande och data insamlades via fokusgrupps intervjuer med sjuksköterskor från sjukhus och äldreboende (n=20).

Delarbete II: syftade till att undersöka 1) frekvensen av och anledningen till remitteringar till akutmottagningen från äldreboende och ifall det var någon skillnad i äldreboendets driftsform. 2) att identifiera frekvensen av undvikbara sjukhusinläggningar definierade av SKL och 3) frekvensen av åter remitteringar till akutmottagningen, inläggning och dödlighet inom 30 dagar efter remittering till akutmottagningen. Metoden var retrospektiv och beskrivande. Data samlades in via en strukturerad undersökning av medicinska journaler tillhörande samtliga personer som under en nio-månaders period remitterats till akutmottagningen från äldreboenden i en svensk kommun.

Delarbete III: syftade till att undersöka möjliga faktorer i organisationen för äldreboenden som kunde förklara skillnaderna i remitteringsfrekvens av äldre personer från äldreboende till akutmottagningen. Metoden var explorativ och beskrivande. Data samlades in via strukturerad undersökning av patient journaler samt via semi-strukturerade intervjuer med sjuksköterskor.

Delarbete IV: syftade till att undersöka och beskriva husläkares erfarenheter och uppfattningar om arbetet som ansvarig husläkare och medicinskonsult till ett äldreboende. Metoden var deskriptiv och data samlades in via semi-strukturerade intervjuer med husläkare (n=15).

Resultat

Delarbete I: sjuksköterskor på äldreboende upplevde att det är svårt att bedöma när den äldre ska till remitteras till sjukhus från äldreboende. Sjuksköterskor på sjukhus rapporterade att de ofta fick försöka stoppa förtidiga utskrivningar eller genomföra utskrivningar fast de inte varit ordentligt förberedda. Både sjuksköterskor från äldreboende och sjukhus föreslog ökat samarbete för att få ökad förståelse för varandras arbete.

Delarbete II: remitteringar till akutmottagningen var 594 av totalt 431 äldre personer (M=1.37 var) från äldreboende. 63% resulterade i sjukhusinläggning (M=7.12 dagar). Äldreboendens remitteringsgrad skiljde sig mellan 0.00 och 1.03 remitteringar/sängplats och var högre för privata vårdgivare än för kommunal/privat icke-vinst drivande vårdgivare. Av alla remitteringar var 25% orsakat av fall och/eller skador inklusive frakturer. Frekvensen av undvikande sjukhusinläggning var 16% av 375 sjukhusinläggningar.

Delarbete III: äldreboenden med hög andel remitteringar till akutmottagningen hade färre medicinska vårdplaneringar genomförda än äldreboenden med låg remitteringsfrekvens. Alla äldreboenden med höga remitteringar var privata vinstdrivande vårdgivare, medan de äldreboenden med låga remitteringar var äldreboende i drift av privat vinstdrivande vårdgivare, övriga var

kommunal/privat icke-vinstdrivande vårdgivare. Fler av de intervjuade sjuksköterskorna från äldreboende med låg remitteringsfrekvens hade specialistutbildning och demensutbildning och hade arbetat längre inom äldreomsorgen jämfört med sjuksköterskor på äldreboenden med hög remitteringsfrekvens.

Delarbete IV: husläkares arbetsuppgift som är ansvarig läkare för ett äldreboende ingår att göra medicinska bedömningar för den äldre personen. Medicinska vårdplaner görs tillsammans med den äldre personen och anhöriga för att planera den medicinska vården och vård i livets slut. Kontinuiteten av sjuksköterskor och deras kompetens är viktiga för kvalitet i vården. Men otillräcklig bemanning, brist på medicinteknisk utrustning och IT system som inte är kompatibla och patientjournaler där läkare och sjuksköterska inte kan läsa varandras journaler är en risk för patientsäkerheten.

Slutsats

Resultaten indikerar att organisatoriska faktorer kan förklara skillnaderna i remitteringsgrad mellan äldreboenden. Genomförande av medicinska vårdplaner (ACPs) på äldreboenden är ett område som behöver förbättras för att följa den äldre personen och familjens önskan om vilken vård som ska utföras. Förbättrad följsamhet till medicinska vårdplaner kan förbättra vården och resultatet för den äldre och minska remitteringar till akutmottagningen. Sjuksköterskors planering och koordinering på äldreboende är mycket viktiga för framtida vård av äldre tillsammans med förbättring av kommunikation och samverkan mellan äldreboende och sjukhus. Av remitteringarna till akutmottagningen var 25% relaterade till fall och/eller skador, inklusive frakturer. Frekvensen av undvikbara sjukhusinläggningar var 16% av 375 sjukhusinläggningar. Andelen av remitteringar till akutmottagningen varierade stort mellan äldreboenden och var högre för privata vårdgivare än kommunala/privat icke vinstdrivande vårdgivare. Kontinuitet av sjuksköterskor och deras kompetens är viktig för vårdkvalité i vården och därmed i förlängningen förbättrade resursanvändning av personal. För att kunna möta det allt mer växande behovet av medicinsk behandling och att kunna erbjuda en hög kvalitativ palliativ vård finns det behov av att öka bemanningen av sjuksköterskor och erbjuda ökad medicinskteknisk vård. Dessutom möjliggöra för sjuksköterskor och läkare att ha tillgång till varandras medicinska journaler.

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