The impact of acute hospitalization on older persons
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Chapter 12
General Discussion
The overall aim of this thesis was to improve postdischarge outcomes for acutely hospitalized older patients. As shown in Figure 1, an accurate and structured discharge process forms the basis of a safe transition from hospital to home, we aimed to improve the hospital discharge process (Part I). In addition, to aid professionals to provide adequate follow-up care and to inform future transitional care interventions that stimulate postdischarge recovery, we aimed to gain a more complete view of patient experiences during the postdischarge period (Part II). Finally, our objective was to establish the course of geriatric syndromes from admission until the first months postdischarge and the association between these syndromes and adverse outcomes, including readmission, mortality and functional decline (Part III).

In this chapter we first provide a reflection on the main findings of this thesis. Then, we discuss the clinical implications of our findings for daily practice. We conclude this chapter with future perspectives and recommendations for future research.

Figure 1. Pyramid for after care, adapted from van Seben et al.\textsuperscript{1}
A structured discharge should form the basis for every patient. For patients discharged with postdischarge care (20-25%), nursing handovers should be set up within 48h after admission and be sent within 24h postdischarge. Complex patients with a high readmission risk (10%) require a (nurse) case manager or transitional care in the transition from hospital to home.
REFLECTION ON THE MAIN FINDINGS

Improving the discharge process (Part I)

A safe handover from hospital to home starts with a structured discharge process and a timely discharge letter with accurate information from the hospital to the General Practitioner (GP). To improve timeliness of patient handovers from hospital to home we aimed to implement a structured discharge bundle, the Transfer Intervention Procedure (TIP) in eight Dutch hospitals. The TIP study was embedded in the context of a large working group of the Dutch Ministry of Health, Welfare and Sport (VWS): ‘Addressing Waste in Health Care’ (Aanpak Verspilling in de Zorg), which aims to reduce inefficiencies in the provision of healthcare. Therefore, secondary outcomes of the TIP study were length of hospital stay and unplanned readmissions. The TIP consists of four elements: 1) to plan the discharge date within 48 hours after admission and communication of the discharge date with the patient; 2) to start with arrangements for required postdischarge care within 48 hours after admission; to prepare patient handovers (medical, medication, and nursing discharge letters) and personalized patient discharge letter (PPDL) within 48 hours after admission; 4) to plan a discharge conversation with the patient to explain information from the PPDL 12 to 24 hours before discharge (Chapter 2).

We defined our primary outcome measure as the number of nursing and medical discharge letters being sent within 24 hours postdischarge. This time-frame was based on a report of the Dutch healthcare inspectorate on patient handovers (in Dutch: Inspectie voor de Gezondheidszorg en Jeugd (IGJ)), in which it is stated that accurate information needs to be available for the next care provider as quick as possible, but certainly within 24 hours. Unfortunately, implementation of the TIP did not improve the number of nursing and medical discharge letters sent within 24 hours. Rates of nursing handovers sent within 24 hours were both pre- and post-intervention above 90%; rates of medical discharge letters sent within 24 hours to the GP were 22.7% and 29.1% pre-intervention and post-intervention, respectively (Chapter 3). Although discharge letters should be sent within 24 hours postdischarge to ensure continuity of care, opting for such a short time frame might have been too ambitious. For example, hospital administrators who do not work during evening hours and weekends or insufficient electronic support may cause delays. In addition, it can also be too demanding for residents to finish discharge letters within 24 hours after discharge, which, in fact, became apparent in our qualitative study in which primary and secondary care providers’ perspectives on patient handovers were explored. Hospital physicians indicated the pressure to discharge patients as early as possible and the need to prioritize acute tasks over discharge-related tasks as important reasons for delayed discharge letters (Chapter 4). Nevertheless, we believe that hospital physicians should continue to attempt to send discharge letters within 24 hours postdischarge, since a timely handover is essential in order to ensure continuity of care and patient safety.

To take a closer look at the intervention-effect of the TIP on timeliness of medical discharge letters, we decided to analyze the median time between time of discharge and discharge letters being sent as well (Chapter 3). Although medical handovers were sent faster post-implementation (pre-intervention median (interquartile range) 6.15 (0.96-15.96) days; post-intervention 4.08 (0.33-13.67) days, we were unable to show significant differences. Given that
the median time at our first pre-intervention measurement point and last post-intervention point were 6.8 and 3.0 days respectively, a before-after design would probably have led to a significant intervention-effect. However, the interrupted time series (ITS) analysis, including six pre-intervention and six post-intervention measurements, showed that a positive trend towards faster discharge letters was already observed along the pre-intervention period. A possible explanation for this positive trend prior to implementation of our intervention is that attention was already paid to the discharge procedure. For example, project groups were established and a kick-off meeting was held. Since awareness creation about the importance of the intervention is an important aspect of implementation, attention to the importance of proper handovers, may have resulted into improvement of the discharge process, and, subsequently, faster discharge letters prior to implementation of the TIP.

Results of sensitivity analyses of the TIP study support our findings that attention to the topic seems to be an important aspect of implementation (Chapter 3). We conducted a process evaluation with the local project leaders of each hospital to investigate protocol adherence, implementation strategies and attention paid to implementation. Elements that were considered during this process evaluation, included leadership and education of project leaders and project groups, projects group meetings, extent of implementation of the discharge bundle, and education of physicians and nurses outside the project group. Based on the process evaluation, we identified three subgroups: in subgroup 1, there was considerable attention for implementation and high protocol adherence; in subgroup 2, there was moderate attention for implementation and high protocol adherence; in subgroup 3, there was nearly no attention for implementation and low protocol adherence. In subgroup 1, a reduction of 5.6 days in the median time between discharge and handovers and a significant change in level of the median time directly after the intervention was observed. However, no intervention effect was observed in subgroup 2 and 3. Hence, from our subgroup analysis it became apparent that protocol adherence and the intensity of implementation efforts is rewarding, resulting in a significant intervention-effect.

Unfortunately, implementation of the TIP did not reveal a reduction in length of hospital stay (LOS) and readmission rates (Chapter 3). A possible explanation for the lack of intervention-effect on LOS, is that current shortages of nursing home beds might preclude a reduction in the median time spent in the hospital, as patients are regularly waiting for several days until they can be transferred to another care setting. At the same time however, there is a pressure among physicians to discharge patients as soon as possible, and it is conceivable that over the past years LOS has reached a minimum for patients who are discharged home. Low overall compliance with our study protocol might also explain the lack of intervention-effect on unplanned readmissions. In addition, due to the high work-load among residents, implementation of a personalized discharge letter for the patient (PPDL) was unsuccessful and patient involvement in the discharge process was still limited post-implementation. Hence, in order to successfully address unplanned readmission, more effort to engage the patient in the discharge process is probably necessary.
Older patients’ perspectives on the postdischarge period (Part II)
The importance of postdischarge follow-up became apparent in the second part of this thesis. In Chapter 5, we interviewed community-dwelling older persons, who were acutely hospitalized and subsequently discharged to home. In the third or fourth week postdischarge, participants indicated that they experienced difficulties resuming their daily routines and they were affected in their mobility, instrumental activities of daily living (IADL), and leisure activities. The vast majority of participants attributed this hospital-associated disability to a combination of symptoms, including fatigue, apathy, unsteadiness while standing, and fear of falling. Further, patients reported muscle weakness, decreased appetite, and weight loss. Overall, it seemed that most persons were passively waiting to recover, while early and active recovery is essential to prevent persistent disability.10

In Chapter 6, older persons were interviewed after discharge from inpatient geriatric rehabilitation and they were invited to reflect on short-term rehabilitation goals they had during inpatient geriatric rehabilitation and to describe their long-term goals now that they were home. Participants described that while they were inpatients, their goals were related to regaining independence in self-care activities and going home. In line, professionals indicated that the inpatient rehabilitation process revolves around getting patients ready for discharge. Similar to hospital stays, rehabilitation periods seem to be as short as possible and patients are discharged when they can rather than when they have reached their pre-morbid level of functioning. In patients’ rehabilitation plans, goals are formulated from a professional’s perspective and mainly related to going back home or being able to perform ADL activities. Hence, at home, patients are not at their pre-morbid level of functioning and participants formulated several ambitious long-term goals, including regaining full independence and being able to perform hobbies and leisure activities again.

It appears that while older persons have ambitious goals related to their pre-morbid level of functioning on the one hand, they are passively waiting to recover on the other hand. Symptoms such as fatigue, apathy, and fear of falling seem to form a hindrance to optimal recovery postdischarge, and have, in fact, been associated with progressive functional decline.11-13 The question rises where these symptoms come from, and we think there might be several potential, non-mutually exclusive explanations. First, it has been proposed that older individuals may experience a so-called ‘post-hospital syndrome’, that is an acquired state of vulnerability due to stress and disruption because of hospitalization.14 The symptoms observed in Chapter 5 may reflect a manifestation of this syndrome and could be the consequence of these adverse circumstances, including difficulties sleeping, bed rest and malnutrition during hospitalization.15-17 It is also conceivable however, that patients themselves are already vulnerable at time of admission, given the overlap between the observed symptoms and the frailty criteria as proposed by Fried et al., which include weight loss, perceived weakness and fatigue.18 In addition, given that similar symptoms have been reported by patients during the palliative phase, it is even probable that the symptoms observed reflect patients’ last year of life.19,20 Besides, acute hospitalization is common near the end of life and postdischarge mortality rates are high.21,22
Geriatric syndromes and their association with adverse postdischarge outcomes (Part III)

Building on the results from the second part of the thesis, we aimed to gain a deeper understanding of recovery and adverse postdischarge outcomes. First, we conducted a systematic review (Chapter 8) to evaluate the presence and course of a broad range of symptoms both during and post-hospitalization, for which we used the overarching concept geriatric syndromes in Part III. Geriatric syndromes refer to highly prevalent, non-specific single symptoms, and this definition allowed us to include a broad spectrum of health conditions. In addition to commonly acknowledged geriatric syndromes such as cognitive impairment and incontinence, apathy and fatigue were included as well. However, from our literature review it became apparent that little research assessed how prevalence rates of these geriatric syndromes develop during hospitalization and postdischarge.

In the Hospital-ADL study, we aimed to establish the prevalence and course of geriatric syndromes from hospital admission up to three months postdischarge and to determine the probability for patients to retain geriatric syndromes over the postdischarge period, once they are present at admission (Chapter 9). We assessed the presence of cognitive functioning, depressive symptoms, apathy, pain, malnutrition, incontinence, dizziness, fatigue, functional impairment, mobility impairment, fall risk and fear of falling at admission, discharge, one-month postdischarge and two and three months postdischarge. We found that in acutely hospitalized older persons, geriatric syndromes were highly prevalent. At admission, the median number of geriatric syndromes per patient was five, amongst which fatigue, functional impairment, apathy, mobility impairment, and fear of falling were most prevalent. On average, four syndromes were present one-month postdischarge, and three syndromes at three months postdischarge. Prevalence rates remained high during the post-hospitalization period. Besides, when a geriatric syndrome was present at time of admission, persons were likely to retain that syndrome over the course from discharge until three months postdischarge. The latter finding was also observed in Chapter 10, where we assessed patterns of syndromes, as they develop between admission and one-month postdischarge. Persistent patterns of syndromes, that is a geriatric syndrome that is both present at admission and one-month postdischarge, were most prevalent; in very few patients syndromes were newly developed postdischarge.

As earlier mentioned, it was suggested that patients may be vulnerable to a so-called post-hospital syndrome. However, the finding that geriatric syndromes are mainly persistently present from admission onwards and patients are likely to retain syndromes postdischarge, further supports the notion that many of the older patients have a rather vulnerable health status prior to hospitalization. Common features of frailty, such as fatigue, malnutrition, and mobility impairment were also observed in the Hospital-ADL study and it is conceivable that in these frail patients, a relatively small acute health problem has evoked acute hospitalization. Subsequently, the presence of geriatric syndromes may have resulted in the onset of functional decline. In fact, over the course of five time-points (admission, discharge, one, two and three months postdischarge), the presence of depressive symptoms, apathy, pain, malnutrition, incontinence, mobility
impairment, fall risk, and fear of falling was strongly longitudinally associated with an increased risk of functional decline. Notably, particularly the persistent presences of apathy, pain, malnutrition, mobility impairment and fear of falling were associated with functional decline. Besides, depressive symptoms, apathy, malnutrition, fatigue, and fall risk were longitudinally associated with mortality, and the presence of geriatric syndromes might thus also reflect that older patients are in their last phase of life.

Whereas several geriatric syndromes were associated with functional decline and mortality, only fatigue and malnutrition were longitudinally associated with readmission. Persons who gained cognitive impairment, fatigue and fall risk at one-month postdischarge were significantly more at risk of readmission in the second or third month postdischarge. However, this may apply to only very small proportion of patients, given that only 4 to 6% of participants developed these syndromes after discharge. Although this lack of strong associations between geriatric syndromes and readmission seems surprising, this finding is in line with a previous study in which an association between geriatric syndromes and functional decline was observed but not with readmission. Additionally, a systematic review of Kansagara et al. showed that patient-factors are generally much better in predicting mortality than readmissions and that rather hospitals and health system factors place patients at elevated risk for readmission.

IMPLEMENTATION AND METHODOLOGICAL CONSIDERATIONS

Implementation of the TIP-discharge bundle (Part I)

The TIP-study sheds light on the difficulties that come along with the implementation of projects that aim to improve quality of care. It was disappointing that, in the total study population, we could not demonstrate an association between implementation of the TIP and sending medical discharge letter within 24 hours after discharge. Despite our implementation efforts, there was low protocol adherence and relatively little attention paid to implementation in some of the hospitals. It can be argued that implementation and protocol adherence could have been better in those hospitals, particularly given that an intervention-effect was observed in hospitals with high protocol adherence and much attention for implementation. However, it is difficult to explain where these differences in efforts and protocol adherence came from. In preparation of implementation of the TIP discharge bundle, we did not focus on local barriers and facilitators for implementation and it is possible that whilst overall implementation efforts were successful in one setting, they were not effective in another care setting. It is a limitation that we could not measure the exact percentages of protocol adherence and, although in line with the observed efforts, the interviews with the project leaders might have resulted in an overestimation of the actual efforts. Besides, the relationship between implementation strategies and the observed outcomes in the different hospitals remains unknown, as does the degree at which the TIP discharge bundle became effective in those hospitals with high overall protocol adherence and much attention for implementation.

Generalizability of qualitative data (Part I/II)

This thesis includes three qualitative studies (Chapter 4, 5, and 6). Since we included small sample sizes, one could argue against the generalizability of these
qualitative data. In Chapter 4, we investigated patient handovers from an academic hospital to primary care providers in adjacent regions, which limits the generalizability of the findings to other settings. In Chapter 5, we characterized patient perspectives on the postdischarge period and the small sample size used in this study may limit generalizability to a bigger patient population. Additionally, due to its qualitative nature determination of correlation between the experienced symptoms and functional outcomes was not possible. Also, in Chapter 6, professionals’ perspectives on patient-centered goal-setting were representative of only a small number of team members and also generalization of patient rehabilitation goals to other older populations might be limited. However, despite these limitations with regard to generalizability, the chosen sample sizes were suited for their purposes and these studies provided valuable insights into professionals’ perspectives and patients’ perspectives that would not have been obtained using quantitative databases. Moreover, the most important conclusions from this thesis are drawn from both qualitative and quantitative research methods, which can be referred to as a mixed methods approach. In Part I, findings from quantitative data were further explored with qualitative data. In Part II and III, findings from qualitative data were further explored using quantitative data. In fact, our qualitative study on post-hospital symptoms provided novel information on patient recovery during the postdischarge period as no studies had yet explored patient experiences during this period (Chapter 5). These insights were the basis for the development of the Hospital-ALD study protocol.

Underestimation of the observed outcomes in the Hospital-ADL study (Part III)
We encountered some methodological issues in the Hospital-ADL study (Chapter 9, Chapter 10, and Chapter 11). First, for pragmatic reasons we did not include delirious and severely cognitive impaired patients. Additionally, patients with a life expectancy of less than three months and those who were too ill to participate were considered to be ineligible for participation. Since geriatric syndromes might be more pronounced in such vulnerable patients, the observed prevalence rates of geriatric syndromes over the hospital and postdischarge course might reflect an underestimation of actual prevalence rates (Chapter 9). For that reason, the observed associations between geriatric syndromes and functional decline, readmission, and mortality (Chapter 10) and the associations between poor health-related quality of life and frailty and post-acute care costs (Chapter 11) might also reflect an underestimation.

In the Hospital-ADL study nearly one third of participants were lost to follow-up or died within three months postdischarge. Whereas most studies exclude these patients from their analyses, we decided to include cases with missing data after we conducted sensitivity analyses to assess the effect of missing data on our results (Chapter 9 and 10). Although this effect was limited, it is conceivable that missing subjects may have gained new syndromes and/or experienced adverse outcomes. This may have led to an underestimation of the prevalence rates of geriatric syndromes (Chapter 9) and the associations between geriatric syndromes and functional decline, readmission and mortality (Chapter 10).

Based on a large number of previous studies, we decided to define functional decline as a loss of independency in at least one basic Katz-ADL activity at three months postdischarge compared to two weeks prior to admission.
Whilst the Katz-ADL assesses only a basic set of self-care activities such as dressing, bathing and toileting, it became apparent in Part II that patients mainly encountered difficulties in mobility, leisure activities, and Instrumental Activities of Daily Living (IADL), such as traveling and grocery shopping. Only 16.8% of patients experienced functional decline in the Hospital-ADL study according to the Katz-ADL, but it is conceivable that a much larger number of patients experienced difficulties in mobility and IADL. Using the Katz-ADL might hence not suit these individual outcomes and the use of patient goals might be more appropriate. When a goal-setting instrument such as Goal Attainment Scaling (GAS) is applied patient goals can then be used as an outcome measure (Chapter 7).

**IMPLICATIONS FOR CLINICAL PRACTICE**

*Further improving the discharge process (Part I)*

Further improving the discharge process, and thereby, timely handovers, should be encouraged. As previously mentioned, there was, with regard to the implementation of the TIP discharge bundle, large inter-hospital variation in terms of protocol adherence and implementation efforts and, consequently, in the observed outcomes (Chapter 3). A comprehensive exploration of local barriers for each step in the TIP discharge procedure might be helpful in order to develop tailor made interventions on a local or department level.\(^{33}\) For example, a barrier analysis, using in-depth semi-structured interviews, could help to provide insight into these local barriers that need to be addressed in the implementation strategy.

In any case, improving the discharge process, seems to require a culture change first (Chapter 4). Hospital physicians might not always be aware of their crucial role in the provision of continuity of care,\(^{6}\) and future interventions should continue to create awareness of the importance of continuity of care and a safe transition from hospital to home (Chapter 3). In that context, feedback mechanisms on, for example, how physicians perform with regard to timely discharge letters might stimulate them to finish their discharge letter within 24 hours. However, intrinsic motivation of physicians is required as well and there seems to be a need for increased mutual acquaintance between secondary and primary care providers (Chapter 4). In fact, according to Hesselink and colleagues,\(^{34}\) awareness of the “needs, skills and work patterns of the professional counterpart”, is essential component of discharge care. Hence, inter-professional education and team-based learning strategies, such as inter-professional shadowing where, for example, hospital physicians shadow GPs, might improve collaboration between hospital and primary care providers and subsequently stimulate intrinsic motivation of hospital physicians.\(^{35,36}\) Also, medical specialists should take a leadership role in the education of residents to promote collaboration between primary and secondary care providers.\(^{37}\)

Although we believe that a structured discharge bundle such as the TIP can be helpful and time saving, discharge related tasks might be deemed as administratively burdensome by physicians. There is a major workload among physicians and, subsequently, discharge related tasks might get buried under acute care tasks (Chapter 4). A structured discharge process could help prevent discharge delays due to untimely arrangement of postdischarge care or delayed discharge letters due to a lack of timely preparation. Physicians should be made aware that early discharge planning, starting at admission, can eventually be time-saving for
hospital staff and timely discharge letters with accurate information for primary care providers.

**Comprehensive geriatric assessment and postdischarge follow-up care (Part II/III)**
The hospital environment has traditionally focused on medical management of the (acute) illness and is therefore designed for rapid and effective delivery of care.\(^{38}\) Subsequently, recovery takes, to a great extent, place at home and particularly older patients may experience difficulties in preserving their daily life due to dependence in mobility and IADL (Chapter 5). To prevent poor outcomes such as functional decline, readmission and postdischarge mortality, adequate follow-up care and the initiation of transitional care seem essential.

Transitional care interventions, initiated during hospitalization and continued over the postdischarge period,\(^ {39,40}\) have already successfully addressed unplanned readmissions\(^ {41}\) and mortality.\(^ {42,43}\) To also prevent functional decline or stimulate recovery, integration of comprehensive geriatric assessment (CGA) and adequate geriatric syndrome management in transitional care seem crucial. CGA comprises a multidisciplinary, systematic diagnostic process to assess the overall health status of older individuals and exposes patients’ vulnerabilities on the somatic, psychological and functional domain.\(^ {44}\) Since adverse postdischarge outcomes seem to be partially caused by vulnerabilities in patients’ health status that were already present prior to the acute illness and admission, it seems that adequate follow-up should account for these vulnerabilities in order to prevent adverse outcomes (Chapter 10 and 11). During admission, CGA could hence be used to develop a treatment and follow-up plan that considers all threats to a patient’s recovery. Besides, CGA provides a comprehensive overview of the patient’s health status, and thereby an opportunity to discuss priorities of the patient and their individual treatment goals, which has been indicated as important component of transitional care.\(^ {45}\) It would stimulate both the care provider as well as the patient to work towards suitable outcomes, aligned with the patient’s needs,\(^ {45}\) particular when a goal-setting instrument such as Goal Attainment Scaling (GAS) is applied. GAS is a method to set patient goals and includes a mathematical technique to quantify goal-attainment over a certain time and it has the potential to detect (clinical important) changes that would be missed with standardized instruments such as the Katz-ADL. In fact, in Chapter 7 we conducted a literature review to assess the psychometric properties of goal-setting instruments in geriatric rehabilitation and it became apparent that GAS has an excellent responsiveness to change. Also, high concurrent, content and predictive validity, and inter-rater reliability were observed. Hence, patient goals set with GAS can be used as additional outcome measure within geriatric rehabilitation or transitional rehabilitation interventions. To actually help patients to attain their goals, rehabilitation components and exercise interventions should also be initiated as part of transitional care.\(^ {46}\)

We need to create awareness among older individuals that geriatric syndromes are risk factors for functional decline. Older individuals may not recognize geriatric syndromes as problematic,\(^ {47}\) which could also explain why patients were passively waiting to recover instead of taking a more active approach (Chapter 5). Previous studies have demonstrated the effectiveness of patient education on patient empowerment and expectation management,\(^ {48,49}\) information on the presence
of geriatric syndromes postdischarge might help patients to more adequately interpret these conditions and help them to take an active response. However, it should be noted that at the same time care providers should be aware that the presence of geriatric syndromes in acutely hospitalized older patients could also reflect that patients are at their end of life and a focus on functional recovery is not warranted (Chapter 10). In these patients advance care planning instead might be needed to improve end of life care and prevent unnecessary hospitalizations.50

As mentioned earlier, only a few geriatric syndromes were associated with readmission and it might rather be that hospital and health system related factors place patients at risk of readmission. Concordantly, a recent Dutch study showed that half of the unplanned readmissions are preventable and caused by exclusively human-related factors as e.g., coordination failures.51 Viewed from another angle, this further underscores the need for appropriate transitional care, with a focus on continuity of care. In fact, a comprehensive systematic review showed that communication between the hospital and primary care provider and care coordination by a nurse are important elements that are significantly associated with the prevention of readmissions.41

**FUTURE PERSPECTIVE**

During the last years of life, older people may suffer from multi-morbidity and disability, are susceptible to acute hospitalization and at risk of subsequent adverse outcomes. In light of current health care reforms, with a focus on a shift from secondary to primary care and a government that stimulates older individuals to live independently for as long as possible,52 hospital care providers and primary care providers should work together to ensure continuity of care. Undoubtedly, care providers all work with the best interest for their (older) patients, and are dedicated to provide optimal health care. However, we believe that opportunities for (even) more effective health care provision that can lead to patient-preferred outcomes (i.e., value-based health care53) may lie in a better collaboration between care providers from different settings. Currently, the only continuing factor in the health care system is the patient and as he or she moves between different care settings, responsibility now shifts from one care provider to another. If outcomes such as functioning, readmission and mortality become a shared responsibility of primary and secondary care providers, they might invest in better collaboration and continuity of care.54

Within our research group, integration of primary and secondary care has resulted in a new care concept, the Acute Community Care Clinic (ACCC, in Dutch WijkKliniek).55 The ACCC provides community based acute hospital care, thereby filling the current gap between primary and secondary care. Older patients who have common medical problems (pneumonia, exacerbation COPD, heart failure or an urinary tract infection) and geriatric conditions (cognitive impairment, depression, functional impairment) can be admitted. The ACCC provides integrated medical and nursing care that is better suited to the needs of older adults with multiple chronic conditions. Studies are currently set to provide evidence for the effectiveness of the ACCC on patient outcomes, including functioning and unplanned readmissions.
FINAL CONCLUSION
This thesis sheds light on the importance of a safe transition from hospital to home in acutely hospitalized older patients. A safe transition starts with a solid discharge process and timely discharge letters from the hospital physician to the primary care provider. Although implementation of a structured discharge bundle did not lead to improved timeliness of patient handovers in the total study population, discharge letters were sent faster in hospitals with high protocol adherence and much attention for implementation of the discharge bundle. Hence, future interventions should continue to create awareness about the importance of a proper discharge process and timely discharge letters. After discharge, older individuals may experience difficulties in resuming their daily life, while they wish to regain their pre-morbid functioning level. Therefore, on top of a solid discharge process, older patients require adequate follow-up care. Since adverse outcomes seem to be rooted in patients’ vulnerable health status, follow-up care should start with comprehensive geriatric assessment (CGA) during admission and communication on the presence of geriatric syndromes to the following care provider. Even more essential might then be the initiation of transitional care interventions that further build on the CGA treatment plan to ensure continuity of care. That way, functional recovery can be stimulated, unnecessary readmissions can be prevented, and, if needed, timely advance care planning can be initiated.
References


