Discharge and Transition Management in Integrated Care

6

Dominika Urbanski, Anika Reichert, and Volker Amelung

6.1 Introduction

A key part of integrated care is to ensure a continuous pathway for a patient when being transferred from one healthcare sector to another. Discharge planning and management tries to achieve exactly that. The discharge process demonstrates excellently the need for integrated care. In almost no other part within the care process one can see a clearer clash of different (a) settings and capacities, (b) personal resources and professional cultures, (c) reimbursement and payment schemes, (d) care and medication procedures, (f) usage of (information) technologies, (e) professional cultures and (f) interests. The importance of each of these aspects depends significantly on the degree of pressure each entity within the healthcare system and their sub-systems has to face. For example, the higher the pressure in the hospital sector, the more likely hospitals will optimize their part in the value chain according to their specific interests. This is not necessarily in the best interest of the entire healthcare system—or even the patient.

The following chapter describes what discharge management entails, why it is needed in health care systems and in what different ways it can be organized. In conclusion, discharge management is an essential part of providing integrated care in all health systems, but there is still a long way to go to guarantee adequate transitions for patients in most (if not all) health systems.

D. Urbanski (⊠)

inav GmbH - Institute for Applied Health Services Research, Berlin, Germany e-mail: urbanski@inav-berlin.de

A. Reichert

Centre for Health Economics, University of York, York, UK

V. Amelung

inav GmbH - Institute for Applied Health Services Research, Berlin, Germany

Institute for Epidemology, Social Medicine and Health System Research, Medical School Hannover, Hannover, Germany

6.2 What Is Discharge Management?

Despite its importance there is no universal definition of the concept of discharge management. Instead, various descriptions can be found in the literature. Taking a very broad perspective, discharge and/or transition management encompasses any transfer of patients between sectors of care delivery, between care givers or providers, or from one setting to another (Chenoweth et al. 2015). It not only describes the planning and guaranteeing of continuity of care (Wong et al. 2011), it also entails "the transfer of professional responsibility and accountability for some or all aspects of care for a patient, [...], to another person or professional group, on a temporary or permanent basis" (Toccafondi et al. 2012, p.i58), including the transfer of budgetary responsibility (Wong et al. 2011).

In the following we focus on a more narrow scope and use the term discharge management to describe the process of patients leaving the temporary inpatient care setting and entering the outpatient care setting, which can be either the patient's home or long-term care institution. The inpatient setting does not only refer to an acute hospital, it also includes inpatient rehabilitation settings (Müller and Deimel 2013).

6.3 Why Discharge Management?

Discharge management appears to be almost an inevitable component of (health) care delivery in modern healthcare systems. The desire to enhance patient empowerment and their satisfaction in order to improve medical outcomes, save costs and meet the demographic challenges supports the need for organizing and optimizing the discharge process. The relevance of well-organized and planned discharge processes arises from the fact that patients who are discharged from hospitals experience higher mortality and morbidity risks which are not only related to medical factors, but may also be linked to social and health service backgrounds (Escobar et al. 2015; Yiu et al. 2013). Patients are especially vulnerable in the period during or directly after discharge (Philibert and Barach 2012). Therefore, the need for discharge planning results from several different factors interacting with each other. The following trends within healthcare systems contribute to the growing importance of managing the interface between out- and inpatient care adequately.

6.3.1 Demographic Challenges

The starting point is -as in many other respects -the demographic challenge as one of the main drivers for the need of discharge management. First of all, there is a simple numeric effect: with an increased average life expectancy the risk of being hospitalised once or more often in life also rises. Hospitalised patients often suffer from worse health and are on average older than those treated in outpatient settings

(Abad-Corpa et al. 2013; Mohr 2009). For example, older people make up only 13% of the U.S. population and 14% of the Canadian population but they are responsible for 45% (USA) respectively 50% (Canada) of the hospital costs (Fox et al. 2013). In older age, not only chronic illnesses are more common, also multimorbidity becomes more likely. This means that in many societies the share of people who are dependent on repeated inpatient medical care which needs to be coordinated with long-term and social care is increasing.

Besides the simple effect of higher age, changes lifestyles and family situations play a role when it comes to discharge management. In many western societies an increasing number of people -especially the elderly -lives alone without the support of families or communities readily available. This is why the patient's living situation and social network needs to be considered at the point of discharge and when planning follow-up care. For example, the type and amount of care needed by an old patient with a hip fracture who lives with family members in a house with a ground floor will differ from the care needed by a patient with the same age and condition who lives alone in an apartment on the fifth floor with no elevator (Wehmeier and Schäfer 2013). Transition planning is particularly necessary as the treatment process and its outcome within the inpatient sector are mutually interconnected with the medical, but also the social and nursing situation of a patient. Not only do patient factors impact whether and how a patient needs to be treated in hospital. A patient's mobility, quality of life, need for care and nursing, and ability for social inclusion may all be changed as a consequence of hospitalization (Deimel 2013). Patients may (at least temporarily) lose their independenceespecially if they are older (Bender 2013).

6.3.2 Rising Costs and Financial Pressure

Financial pressure has increased dramatically in almost every health system due to constantly rising costs. This however increases the tendency of single providers or sectors to act in their own interests which may not necessarily be in the best interest of the entire healthcare system - and most likely even less in the interest of the patient. One result of the ongoing budget constraints in the inpatient sector is the trend of shifting procedures from the inpatient setting into the outpatient setting. However, in the long run this may lead to higher total costs. In the US, almost 20% of elderly patients are readmitted to a hospital within one month after discharge (Shu et al. 2011). This does not only lead to rising costs, it also leads to increased suffering by the patients. Studies have shown that discharge management can reduce readmission and mortality rates (Shu et al. 2011). The financial incentives for effective discharge planning are considerable and relate to reduced readmissions, keeping patients in their homes and out of residential care (Chenoweth et al. 2015) or freeing up acute beds (Atwal et al. 2002). It is assumed that approximately 30% of discharges in the United States are delayed due to non-medical reasons, including inadequate assessment of the patient and lacking knowledge of a patient's social environment, problems in the organization of

follow-up care, delays in the ordering of transportation means for the patient (to their homes etc.) and poor communication between hospitals and outpatient service providers (Shepperd et al. 2013). More and more reimbursement systems focus on some kind of guarantees which have to be met by the hospitals. For example in the German DRG system, insurance companies will not reimburse the hospitals for patients with certain defined indications if they had been readmitted within a defined period of time after discharge.

6.3.3 Declining Length of Stay

The average length of hospital stay has declined in many countries over the past years (see Fig. 6.1, also Eurostat 2015). In the EU member states it dropped from 9.6 to 7.8 days between 2000 and 2012 (OECD 2014). Even though these numbers do not say much about the quality of care as such, they do imply that the process of entering and leaving the hospital setting needs to be optimized to guarantee the same quality of care in a shorter period of inpatient time. It also means that patients leave the hospital more vulnerable than they used to. They often still require intensive and specific care -which should preferably be closely coordinated with the care received in the inpatient setting. However, it may be challenging for the outpatient setting to maintain the intensity of care provided in the inpatient unit (Deimel 2013). In Germany for example, hospitals have access to more expensive medications. The continuous treatment with the same products can therefore cause financial problems for ambulatory care providers due to their more restrictive budgets. A decline in the length of stay further implies an increase in interfaces as patients have more care needs and thus more providers need to be involved and coordinated. Given this context, it is particularly important that the transition between hospitals, general practitioners (GPs), social care and other providers works well.

6.3.4 Financing and Reimbursement Systems

As mentioned before, there is a variety of financing systems and responsibilities involved in the process of discharge management and they usually co-exist without cooperation between systems. Discharge management is especially needed in systems that are still organized in silo-structures. The silo-analogy refers to the coexistence of structures which are not interacting with each other. For example, in Germany both the in- and the outpatient sector have strictly separate budgets and the health and social care sector are even financed by a different insurance system.

The DRG (Diagnosis-Related Groups) systems, and other comparable systems which are used for reimbursement in the hospital sector in many countries, provide a fixed payment per patient based on the average costs of patients with a comparable condition. The less the patient costs - i.e. the shorter the stay of the patient - the more the hospital can profit. Increasing competition between hospitals adds to the

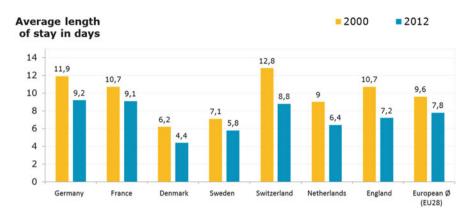


Fig. 6.1 Average length of stay in hospitals for all causes, 2002 and 2012 (or nearest year). Source: OECD Health Statistics, 2014, own diagram

pressure hospital providers face nowadays. These factors lead to a strong focus on economic efficiency and cost reductions. In the example of Germany, the introduction of the DRG system has brought about some important changes, highlighting the importance of discharge management. Previously, the financing system allowed the hospital to take into consideration the individual situation of a patient and even postpone the discharge if there was nobody to care for the patient in the outpatient setting. This became less common (and financially unbearable) under the DRG system (Mohr 2009). The revolving-door effect mentioned in this context refers to a situation where patients are discharged "too early" and re-enter the inpatient setting within a few days after discharge. Reasons for this include a lack of or inappropriate provision of care in the outpatient setting. Numbers from the United States underline this vividly: approximately one fifth of Medicare beneficiaries who are discharged from the hospital re-enter the inpatient setting within 30 days of discharge. Half of them had no contact to a GP during the outpatient time (Hennessey and Suter 2011).

Organising care in a coherent and coordinated way is particularly difficult in the context of economic pressure that most or many health systems face today. This, together with the divided financing and reimbursement systems, does not foster but work against integration and cooperation. Services that focus on organizing and managing the transition of patients are oftentimes not or not sufficiently remunerated as each sector calculates their costs separately. This means that shifting cost from the inpatient to the outpatient sector by discharging as early as possible appears rational from the perspective of the inpatient sector but may in the long run lead to higher costs for the health system - and to a poorer medical outcome for the patient. However, this does not mean that discharging patients early is never an optimal choice. Looking at COPD patients for example, finding alternative ways to treat patients outside of hospitals is an important factor for minimizing cost. The key is well-designed discharge planning to make early discharge a fruitful way for all actors, including the patients (Escarrabill 2009).

6.3.5 The Need to Manage Complexity

Discharging a patient from the hospital into the outpatient sector or the long-term care sector is a process involving many different actors and systems. According to Deimel et al. (2013), there are six main areas that the discharge process potentially has to cover: medicine, rehabilitation, nursing care, medical aids, social care and relatives (see Table 6.1). Usually, more than one of these areas or actors has to be involved in the discharge process. It is important to note again that the process does not only involve professional actors, but also the social environment of a person. Discharge management is thus a multidisciplinary process focusing on many aspects of a patient's life.

Given a high degree of specialization of hospitals, the complexity and the number of actors that have to be coordinated increases. Instead of one regional hospital there are often many specialized clinics treating patients. In many countries, the general practitioner (GP) takes a large share of the responsibility in guaranteeing the follow-up treatment but is often not sufficiently informed about the treatment the patient received in the hospital (Hesselink et al. 2014; Harbord 2009). The fact that various independently operating actors - such as social care institutions, specialists and therapists, nursing providers, or pharmacists - may be responsible for the same patient further adds to the challenge of providing continuous care. To guarantee seamless care, sectors must communicate and exchange information (Mohr 2009). This does not only require the exchange of medical or social information but also the clarification of responsibilities between actors. The latter is often unclear, especially when multi-morbid patients leave the hospital setting, needing services of different specialized providers (Hennessey and Suter 2011). Gaps in the delivery of care may particularly result from patients being discharged on weekends, when the GP or a follow-up care specialist are not available, or adequate medication, medical aids or else cannot be provided in time. Furthermore, many communication systems are not compatible between sectors or providers. These factors may lead to patients receiving wrong or inappropriate treatment and increase the risk of adverse effects such as a longer length of stay or a higher proportion of readmissions. This in turn, may cause patient dissatisfaction and increased health care expenditure (Drachsler et al. 2012). To guarantee seamless delivery of care, professional discharge and transition management is key (Harbord 2009) and implementing it successfully requires a clearly defined regulatory and legal framework.

6.4 How to Put Discharge Management into Practice

"Effective discharge planning requires capacity planning, performance review, hospital discharge policies, and healthcare providers/stakeholders agreements. There is clear evidence and wide agreement among healthcare providers/stakeholders that a standardized and policy-driven protocol [is] important to an effective discharge planning." (Wong et al. 2011, p. 9)

Follow-up care sectors	
Medicine	Nursing care
Physician and specialist care	Ambulatory care services
Diagnostics	Care consultation services
Therapy in another hospital	Partial in-patient and in-patient care services
Wound management	
Nutrition therapy	
Drug management	
Rehabilitation	Aids
In- and out-patient rehabilitation	Movement
Physiotherapy	Home support
Ergotherapy	Medical devices
Speech therapy	
Social	Relatives
Housing and financing matters	Out-patient assistance/support
Psychosocial services	In-patient care services
Severe disability	Short-term nursing

Table 6.1 Sectors and actors involved in follow-up care, Source: Adapted from Deimel et al. (2013)

To date, many different attempts and models to organize the discharge and transition process exist. They vary not only across but also within health systems. However, this diversity has not yet led to a clear "best-practice" model. Instead, discharge management processes in general leave a lot of room for improvement to guarantee optimal care for the patients, but also their relatives, the caring institutions and other partners (Deimel 2013).

Overall, research draws a rather negative picture of the situation of discharge management, pinpointing to a lack of effectiveness in daily practice, a lack of clear strategies and challenges in evaluating interventions (Hesselink et al. 2014). Among others, the difficulty of changing behaviours of providers is being widely emphazised and discussed. Inefficiencies caused by poor information exchange, poor coordination of care and poor communication between the various providers as well as between providers and patients lead to - oftentimes preventable - readmissions (Hesselink et al. 2014). The HANDOVER project which was initiated in 2008 and funded by the European Union's Seventh Framework Programme aimed at investigating and defining how to best improve the discharge process. In this project, researches from Italy, the Netherlands, Poland, UK, Spain and Sweden as well as from the United States and Australia worked together (Philibert and Barach 2012). The research group identified among other things barriers to transitions, which include "time constraints and low prioritisation of discharge communication, pressure on available hospital beds, and variability in patient and family member involvement in discharge planning" (Philibert and Barach 2012, p.i1).

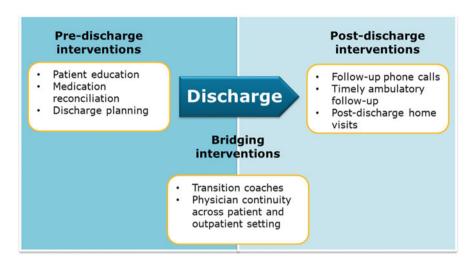


Fig. 6.2 Discharge interventions according to Tang et al. (2014)

The diversity in discharge practice is reflected in the various categorizations of discharge management that can be found in the literature. For example, interventions or models can be categorized based on the time of care they focus on. Tang et al. (2014) suggest a categorization into pre-discharge, post-discharge and bridging-interventions (see Fig. 6.2).

For each of these three phases of discharge management, various different models of integrating health care and organizing discharge management can be further identified and applied. Burns and Pauly (2002, p.136ff) for example suggest four models of integrated health care within hospitals, which can be also applied to models of organizing discharge management:

- Customized integration and disease management, describing the tailored integration around diseases or individuals (case management and disease management), oftentimes covered by public health insurance programs
- 2. Co-location of care, describing joint-venture collaborations including the relocation of personnel to foster interaction and integration.
- 3. IT-integrated health care, describing the integration through technologies such as electronic health records, automated drug dispensing, remote patient monitoring etc.
- Patient-integrated health care, empowering the individuals as gatekeepers of their own health.

If the outpatient and social care sector would be added, the list would likely grow longer. Nevertheless, these four models show clearly how many different ways exist to put discharge management into practice. No matter which phase of the

discharge process and which model is chosen, it is important to take a professional approach.

6.4.1 Professionalization of Discharge Planning

Discharge management, if primarily understood as the process of leaving the inpatient setting, is to a large extent seen as the responsibility of the hospitals. Even though the process is multi-professional and multi-dimensional, it is (or should be) initiated in the hospital - some argue as soon as the patient enters the hospital (Deimel 2013; Müller and Deimel 2013). Planning and managing the discharge process of patients is, as should be evident by now, a very complex task. Therefore, it is quite surprising that a recent survey of hospital managers in the United Kingdom found that case managers responsible for discharges seldomly had certifications or long time experiences in discharge planning (Chenoweth et al. 2015).

Effective discharge management needs the cooperation of various actors within a complex setting: The hospitals with their doctors, social services, nursing services, the specialists and practitioners in the outpatient setting, pharmacies, and rehabilitation or care institutions (Pilgrim and Kittlick 2013). In this context, the call for a professional and qualified discharge manager who is responsible for navigating the patient through this complex system is not surprising (Deimel et al. 2013; Harbord 2009; Hennessey and Suter 2011; Wong et al. 2011). Communication among the various actors needs to be organized and professionalized since they are not used to interact in their regular day-to-day work (Mohr 2009). Defining a responsible person in charge of this process has proven to be helpful to achieve successful communication (Wong et al. 2011). In Germany, the responsibility for discharge management was for the longest time with the social services, but over time has been shifted to the nursing services of the hospital. The responsible departments guarantee that the patients receive all services they are entitled to, manage the initiation of nursing care, help with financial as well as housing questions, and initiate psychosocial interventions if needed. However, the degree to which these agencies are responsible and capable varies from hospital to hospital. In the Anglo-American health care systems, it is common to find a "discharge planner" who is responsible for the adequate discharge of the patients. In these systems, discharge management also includes the empowerment and active involvement of the patients (Müller and Deimel 2013). Still, the work initiated in the hospital is often not adequately continued once the patient leaves the inpatient setting (Pilgrim and Kittlick 2013).

Frequently, GPs take the lead and responsibility for coordinating the patient's care. However, it was found that they are often very challenged by these tasks, especially due to a lack of communication and information. They further do not feel sufficiently rewarded for this work (Philibert and Barach 2012). Short-notice releases of patients from the hospital that do not allow enough time to initiate follow-up care add to the challenge (Müller 2013). Not only the outpatient doctors

see the inter-sectoral cooperation as being problematic at times; the inpatient doctors also voice concerns. They complain, for example, about the resistance of GPs to continue or at least take into account the care provided in the inpatient setting (Dienst 2013). The outpatient doctors, in contrast, point out delays in receiving discharge documents from the hospital or receiving incomplete documentations. Information technology may help improving this process in the future.

6.4.2 Integrating Various Components

Evidence seems to suggest that only discharge programs including various interventions are successful in improving care and reducing hospital readmissions. "In a recent systematic review, no single intervention was found to be associated with a reduced risk for 30-day readmissions" (Tang et al. 2014, p.1513).

Even though many tools currently in use have been evaluated, there is a lack of clear evidence of their effectiveness. Limited evidence exists for the effectiveness of discharge planning reminders, financial incentives and penalties. The effects of including discharge management in the medical curriculum and of feedback forms and other ways to trigger provider reflections are also not clear (Hesselink et al. 2014). A systematic review of literature assessing post-discharge telephone calls and their impacts found no clear evidence of their effects on readmission, emergency department use, patient satisfaction and well-being as well as follow-ups (Bahr et al. 2014).

However, evidence regarding models that integrate various components into the discharge process seem to be more conclusive. In the United States, for example, an integrated post-discharge transitional care program entailing a disease-specific care plan, follow-up phone calls, hotline counselling and referrals to hospital-run clinics significantly decreased readmissions within 30 days after discharge (Shu et al. 2011).

The finding that integrated approaches are more fruitful is not surprising when keeping in mind that inefficiencies are rooted in various factors. These can be divided into those related to attitudes and behaviours, to processes (such as missing guidelines), to technical problems (such as lacking electronic information exchanges) or patients (Hesselink et al. 2014). Addressing just one factor is unlikely to have a strong impact given the complex context. Effective tools need to go hand in hand with training, reimbursement, policies and enabling organizational structures. Further they must include the patient's preferences (Drachsler et al. 2012; Hesselink et al. 2014).

6.4.3 Patient Involvement

Patients who experience discharge management are more satisfied with the care they received in and outside the hospital than those who did not receive this service (Abad-Corpa et al. 2013; Shepperd et al. 2013). This introduces another important actor of the discharge process, who is often not sufficiently included as an active participant in the care process: the patient. The mostly passive role of the patient to date is slowly changing in many aspects of the health care system, but particularly in successful discharge management. The patient is an important, if not the most important, actor in the process of care after treatment. This is also reflected in the shift of responsibilities: Patients are becoming increasingly responsible for their own health and wellbeing. One crucial component needed for patients to assume a more active role is information and education which they increasingly demand and wish for (Mohr 2009). Research shows that the patient's involvement is positively influenced when she or he is provided with information regarding the discharge - written or verbal - and when she or he isgiven guidance, for example via counselling, follow-up calls, or home visits (Hesselink et al. 2014). If not informed and integrated appropriately, patients may not be able to meet the expectations of being responsible actors in this process (Philibert and Barach 2012). Discharge management should not only aim at improving coordination of care, but also at including the patients into decision-making processes (Abad-Corpa et al. 2013).

Bender (2013) summarizes the findings of various studies highlighting the main problems patients and their relatives experience during the discharge process. These problems can be encountered pre-discharge, inside the hospital setting during the discharge process and post-discharge, in the outpatient setting (see Fig. 6.3).

Besides the patients themselves, their relatives are important actors to be involved in discharge management. Relatives often bear a large share of the responsibility of providing and guaranteeing immediate follow-up care after patients are discharged (Pilgrim and Kittlick 2013). Informing them in a timely manner about the various challenges, changes and needs will lead to better care for the patients.

6.4.4 Information Exchange and Technology

Another common challenge related to planning discharge processes is connecting the various actors. Technology can help improve this process by, for example, enabling care providers to communicate via a common electronic patient record (Pilgrim and Kittlick 2013). In many countries, such records are already being widely used. Other countries, such as Germany, are far behind—especially due to restrictive data protection policies (Amelung et al. 2016).

For successful discharge planning, it is crucial that relevant information is exchanged between care providers and that it is available for the follow-up care givers as soon as possible. This also includes the need for complete, accurate and understandable documents as well as the adequate transmission of information which can be via the patient or electronic means (Hesselink et al. 2014). The review by Hesselink et al. (2014) finds that using standardised procedures such as discharge letter templates, planning guidelines, or medication reconciliation checklists has proven to be an effective tool.

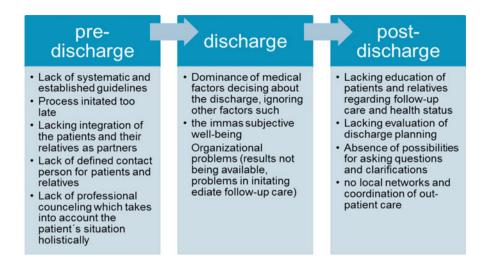


Fig. 6.3 Problems experienced with discharge management by patients and relatives. Source: Adapted from Bender (2013)

6.4.5 Early Initiation and Predictive Models for Discharge Management

Besides coordinated communication, the importance of an early initiation of the discharge process is emphasized, so that the various actors involved can be contacted and coordinated as needed (Harbord 2009). This should also include early screening of high-risk patients upon admission (Wong et al. 2011; Müller and Deimel 2013). Early initiation of discharge processes has been shown to lead to a significant reduction in re-admission rates one and twelve months after discharge from the hospital compared to standard care (Fox et al. 2013). Early initiation of discharge management was defined as initiation during the acute phase of the medical condition. If patients were readmitted, early discharge management reduced the average hospital stay by 2½ days. Mortality, however, did not vary between the treatment and the control group. Not just early discharge management, but any discharge management has been shown to have a positive effect on the length of hospital stay, especially for elderly patients, and re-admission rates (Shepperd et al. 2013; Rennke et al. 2013).

Models that predict the likelihood of readmission and the occurrence of health problems are a useful tool to support early initiation of the discharge process. Such models can be used to guide discharge planning before the patient gets discharged. Administrative data are fed into the system. However, Escobar et al. (2015) found such models to rarely incorporate clinical and patient-reported data. In the United States, organisations such as Kaiser Permanente are increasingly using information from electronic medical records (EMR) for predictive models to generate scores indicating the severity of illness and longitudinal comorbidity (Escobar et al. 2015). Using the information and infrastructure available, Escobar et al. (2015) developed

a predictive model that calculates a 7- and 30-day risk estimate to inform inpatient care givers as well as case managers outside the hospital setting to help preparing service delivery.

6.5 Conclusion

Discharge management is an essential—if not the essential—part of providing integrated care in all health systems. However, there is still a long journey towards guaranteeing adequate transitions for patients in most (if not all) health systems. Discharge management is one of the traditional managed care approaches which potentially leads to both—higher quality and reduced costs. The major challenge for its success is the existence of conflicting interests within the different sectors of the health care provision which come together in this process. If hospitals are not integrated in a larger system with a single financial responsibility for a defined population they will continue to optimize their individual value chain. Therefore, an adequate reimbursement system such as bundled payments is essential to enable a functioning discharge management system. Secondly, the different professional cultures in the various sectors need to be addressed adequately to be of value to the patient and not a barrier to optimal treatment. It must be in the interest of all parties to internalize the discharge management interfaces within a network of providers.

One factor is important to keep in mind: organizing and sustaining successful discharge management requires resources and comes at a cost (Shepperd et al. 2013). However, in the long run discharge management has high potential for increasing the efficiency of health systems. It has been shown that professionalising discharge management can lead to reduced costs for health care provision (Shepperd et al. 2013). Nevertheless, coherent and reliable evidence is still missing.

References

- Abad-Corpa, E., Royo-Morales, T., Iniesta-Sánchez, J., Carrillo-Alcaraz, A., Rodríguez-Mondejar, J. J., Saez-Soto, A. R., & Vivo-Molina, M. C. (2013). Evaluation of the effectiveness of hospital discharge planning and follow-up in the primary care of patients with chronic obstructive pulmonary disease. *Journal of Clinical Nursing*, 22, 669–680.
- Amelung, V., Bertram, N., Binder S., Chase, D. P. & Urbanski, D. (2016). Die elektronische Patientenakte. Fundament einer effektiven und effizienten Gesundheitsversorgung. Stiftung Münch (Hrsg.), medhochzwei.
- Atwal, A., & Caldwell, K. (2002). Do multidisciplinary integrated care pathways improve interprofessional collaboration? *Scandinavian Journal of Caring Sciences*, 16, 360–367.
- Bahr, S. J., Solverson, S., Schlidt, A., Hack, D., Smith, J. L., & Ryan, P. (2014). Integrated literature review of postdischarge telephone calls. Western Journal of Nursing Research, 36, 84–104. doi:10.1177/0193945913491016.
- Bender, T. (2013). Kritische Analyse aus Sicht des Patienten/Angehörigen. In D. Deimel & M. L. Müller (Eds.), *Entlassmanagement. Vernetztes Handenln durch Patientenkoordination* (pp. 12–14). Stuttgart: Thieme.

Burns, L. R., & Pauly, M. V. (2002). Integrated delivery networks: A detour on the road to integrated health care? *Health Affairs*, 21, 128–143. doi:10.1377/hlthaff.21.4.128.

- Chenoweth, L., Kable, A., & Pond, D. (2015). Research in hospital discharge procedures addresses gaps in care continuity in the community, but leaves gaping holes for people with dementia: A review of the literature. *Australasian Journal on Ageing*, 34, 9–14.
- Deimel, D. (2013). Einleitung allgemeiner Teil. In D. Deimel & M. L. Müller (Eds.), Entlassmanagement. Vernetztes Handenln durch Patientenkoordination (pp. 2–5). Stuttgart: Thieme.
- Deimel, D., Kuß, A., & Ossege, M. (2013). Positionspapier: Entlassmanagement im Krankenhaus. Retrieved from http://www.bmcev.de/fileadmin/Daten/Positionspapiere/BMC-Positionspapier-Entlassmanagement_Langfassung.pdf
- Dienst, S. (2013). Kiritsche Analyse aus Sicht eines Krankenhauses. In D. Deimel & M. L. Müller (Eds.), *Entlassmanagement. Vernetztes Handenln durch Patientenkoordination* (pp. 21–25). Stuttgart: Thieme.
- Drachsler, H., Kicken, W., van der Klink, M., Stoyanov, S., Boshuizen, H. P. A., & Paul, B. P. (2012). The Handover Toolbox. A knowledge exchange and training platform for improving patient care. *BMJ Quality and Safety*, *21*, i114–i120. doi:10.1136/bmjqs-2012-001176.
- Escarrabill, J. (2009). Discharge planning and home care for end-stage COPD patients. *The European Respiratory Journal*, 34, 507–512. doi:10.1183/09031936.00146308.
- Escobar, G. J., Ragins, A., Scheirer, P., Liu, V., Robles, J., & Kipnis, P. (2015). Nonelective rehospitalizations and postdischarge mortality. Predictive models suitable for use in real time. *Medical Care*, 53, 916–923.
- Eurostat. (2015). Hospital discharges and length of stay statistics. Retrieved from http://ec.europa.eu/eurostat/statistics-explained/index.php/Hospital discharges and length of stay statistics
- Fox, M. T., Persaud, M., Maimets, I., Brooks, D., O'Brian, K., & Tregunno, D. (2013). Effectiveness of early discharge planning in acutely ill or injured hospitalized older adults: A systematic review and meta-analysis. *BMC Geriatrics*, *13*, 1–9.
- Harbord, A. (2009). Ernährung in der ambulanten häuslichen Versorgung. In C. von Reibnitz (Ed.), *Homecare* (pp. 47–58). Bern: Verlag Hans Huber.
- Hennessey, B., & Suter, P. (2011). The community-based transitions model: One agency's experience. *Home Healthcare Nurse*, 29, 218–230.
- Hesselink, G., Zegers, M., Vernooij-Dassen, M., Barach, P., Kalkman, C., Maria Flink, M., Öhlén, G., Olsson, M., Bergenbrant, S., Orrego, C., Suñol, R., Toccafondi, G., Venneri, F., Dudzik-Urbaniak, E., Kutryba, B., Schoonhoven, L., & Wollersheim, H. (2014). Improving patient discharge and reducing hospital readmissions by using intervention mapping. *Health Services Research*, 14, 389.
- Mohr, A. (2009). Integrierte Versorgung eine Perspektive für Homecare. In C. von Reibnitz (Ed.), *Homecare* (pp. 176–177). Bern: Verlag Hans Huber.
- Müller, T. (2013). Kritische Analyse aus Sicht eines ambulanten ärztlichen Dienstleisters. In D. Deimel & M. L. Müller (Eds.), *Entlassmanagement. Vernetztes Handenln durch Patientenkoordination* (pp. 28–31). Stuttgart: Thieme.
- Müller, M. L., & Deimel, D. (2013). Begriffsbestimmung und heute bereits umgesetzte Modelle. In D. Deimel & M. L. Müller (Eds.), *Entlassmanagement. Vernetztes Handenln durch Patientenkoordination* (pp. 6–11). Stuttgart: Thieme.
- OECD. (2014). Average length of stay in hospitals. In *Health at a Glance: Europe 2014*. Paris: OECD. Retrieved from http://www.oecd-ilibrary.org/docserver/download/8114211ec031. pdf?expires=1456492455&id=id&accname=guest&checksum=DC093FF3F544DB13E2 B62F26D608D522.
- Philibert, I., & Barach, P. (2012). The European HANDOVER Project: A multi-nation program to improve transitions at the primary care-inpatient interface. *BMJ Quality and Safety*, 21, i1–i6. doi:10.1136/bmjqs-2012-001598.

- Pilgrim, T., & Kittlick, C. (2013). Kritische Analyse aus Sicht des Versorgungsmanagements. In
 D. Deimel & M. L. Müller (Eds.), Entlassmanagement. Vernetztes Handenln durch
 Patientenkoordination (pp. 15–18). Stuttgart: Thieme.
- Rennke, S., Nguyen, O. K., Shoeb, M. H., Magan, Y., Wachter, R. M., & Ranji, S. R. (2013). Hospital-initiated transitional care interventions as a patient strategy. *Annals of Internal Medicine*, 158, 433–441.
- Shepperd, S., Lannin, N. A., Clemson, L. M., McCluskey, A., Cameron, I. D., & Barras, S. L. (2013). Discharge planning from hospital to home (Review). *Cochrane Database of Systematic Reviews*, 1, CD000313.
- Shu, C. C., Hsu, N. C., Lin, Y. F., Wang, J. Y., Lin, J. W., & Wen-Je Ko, W. J. (2011). Integrated postdischarge transitional care in a hospitalist system to improve discharge outcome: An experimental study. *BMC Medicine*, 9, 96.
- Tang, N., Fujimoto, J., & Karliner, L. (2014). Evaluation of a primary care-based post-discharge phone call program: Keeping the primary care practice at the center of post-hospitalization care transition. *Journal of General Internal Medicine*, 29(11), 1513–1518. doi:10.1007/s11606-014-2942-6.
- Toccafondi, G., Albolino, S., Tartaglia, R., Guidi, S., Molisso, A., Venneri, F., Peris, A., Pieralli, F., Magnelli, E., Librenti, M., Morelli, M., & Barach, P. (2012). The collaborative communication model for patient handover at the interface between high-acuity and low-acuity care. *BMJ Quality and Safety*, *21*, i58–i66. doi:10.1136/bmjqs-2012-001178.
- Wehmeier, D., & Schäfer, A. (2013). Kritische Analyse aus Sicht einer Rehaklinik. In D. Deimel & M. L. Müller (Eds.), *Entlassmanagement. Vernetztes Handenln durch Patientenkoordination* (pp. 25–27). Stuttgart: Thieme.
- Wong, E. L. Y., Yam, C. H. K., Cheung, A. W. L., Leung, M. C. M., Chan, F. W. K., Wong, F. Y. Y., & Yeoh, E. K. (2011). Barriers to effective discharge planning: A qualitative study investigating the perspectives of frontline healthcare professionals. BMC Health Services Research, 11, 242.
- Yiu, R., Fung, V., Szeto, K., Hung, V., Siu, R., Lam, J., Lai, D., Maw, C., Cheung, A., Shea, R., & Choy, A. (2013). Building electronic forms for elderly program: Integrated care model for high risk elders in Hong Kong. *Medinfo*. doi:10.3233/978-1-61499-289-9-1016.