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An Ethnographic Study of Quality Coordinator Work in two Danish Hospital Departments

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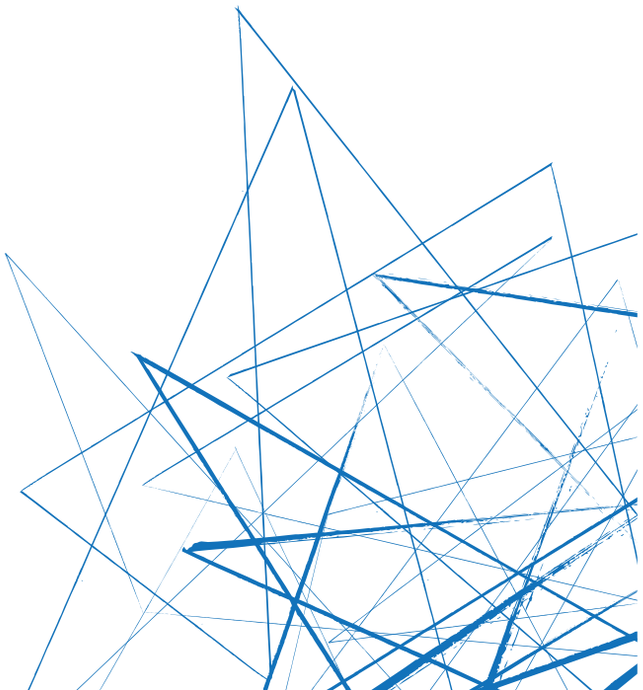

Marie Henriette Madsen

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PhD School in Organisation and Management Studies | **PhD Series 39.2015**

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EMERGING AND TEMPORARY CONNECTIONS IN QUALITY WORK

AN ETHNOGRAPHIC STUDY OF QUALITY COORDINATOR WORK IN TWO DANISH HOSPITAL DEPARTMENTS

Marie Henriette Madsen

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Doctoral School of Organisation and Management Studies

Copenhagen Business Schoo

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Marie Henriette Madsen

Copenhagen, July 2015

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PART I

INTRODUCTION

In this thesis, I explore 'quality development'[1] in a Danish hospital setting with a special emphasis on the work related to the management and organisation of local quality development initiatives. The theme of quality development is not new. On the contrary, how to provide the best possible care for patients has always been a central concern in the health care sector (Knudsen, Christiansen & Hansen 2008, Vallgårda 1992, Krøll 1995). For the past decades, this concern has resulted in formulations of quality standards and clinical guidelines that define best practices for clinical work, as well as the adaption of formalised methods and procedures to measure, assess and control quality to the extent that in the research literature has been referred to as both a "*safety and quality movement*" (Zuiderent-Jerak, Berg 2010) and a "*measure and management orthodoxy*" (Waring 2009).

The increased standardisation of quality development can be seen as a reaction to documented variation in the level of service (Zuiderent-Jerak, Berg 2010, Wennberg, Gittelsohn 1973) and to the recognition of adverse events (errors) in relation to patient treatment and care (Reason 2000). Additionally, the increase in patients with chronic diseases is putting pressure on the budgets of health care, and this, combined with an increased specialisation of medical care, is also challenging the ability to provide coherent and effective trajectories (Gittell 2009). Finally, the public sector, and hence also the health care sector, has become the subject of several attempts to improve public

[1] The use of 'quality development' in this thesis should not be taken as a presupposition about the effects of these efforts. The term is an emic term used in, for instance, Danish textbooks on health care quality development, where it is defined as a superordinate term for a vast array of activities encompassing quality assessment, quality control and monitoring of quality (Mainz et al. 2011, Kjærgaard et al. 2001).

services as part of New Public Management reforms (Knudsen, Christiansen & Hansen 2008, Kuhlman 2006a, Kragh Jespersen 2005, Friis 2014).

In this realm of providing more and better care at lower costs, and to counter the perceived threats to quality, a variety of methods and procedures has been introduced. Among these are audits, root cause analyses and PDSA-cycles[2], which all introduce certain best practices for the conduct of quality development. In this way, quality and quality development have become increasingly formalised and standardised, and involves specific expectations and requirements, not only with regard to the practices of patient care, but also to the practices of quality development.

On the one hand, quality development in health care tends to be used as an ambiguous superordinate for a vast array of initiatives aiming at changed practices of work, increased efficiency, patient satisfaction and, of course, increased recovery, reduced mortality and other effect-related measures of the health care service delivered. On the other hand, quality development is also characterised by relatively fixed specifications of the necessary methods and procedures to be used. Thus, the so-called 'quality movement' defines and outlines not only one but several distinct and generalised expectations to the way that quality development is executed in the local health care settings in terms of methods, tasks and timeliness. The starting point for this thesis was an observation of these many simultaneous agendas and practices related to quality development in health care and an interest in what efforts are required to put these agendas and practices into work. Consequently, the main interest of this thesis became to study how quality development emerges in local health care settings and in a field of plural expectations.

[2] PDSA: Plan, Do, Study, Act. The PDSA-cycle is an important part of quality development in healthcare and provides a model for continuous monitoring, learning and adjustment of the services provided in local healthcare institutions.

There is a rich body of literature exploring the intricate details of the implications of the many quality development initiatives. In traditional health services research, the effects of the various quality development initiatives are important themes of interest, which mirrors the more general interest in evidence as an important aspect of decision making processes in a medical context (see for instance: Braithwaite et al. 2010, Falstie-Jensen et al. 2015, Øvretveit, Gustafson 2002). Here, the underlying logic is that quality development technologies and methods that cannot prove their worth in accordance with their intents have to be discarded and displaced by more effective ones. Quality development and its ambitions of improvement, efficacy and efficiency have also raised curiosity among social scientists, who also ask questions about effect, though with a somehow different intent. Here, there has been an interest in investigating the performative effects of these quality development initiatives; how are medical work, the actors in health care and the health care organisations affected when new ways of managing, monitoring and regulating quality are introduced? The implementation of various methods of quality development has been recognised as a challenging endeavour, because it requires immense efforts (Zuiderent-Jerak et al. 2009, Jerak-Zuiderent, Bal 2010, Allen 2009, Allen, Pilnick 2005), sometimes produces unexpected effects (Vikkelsø 2005) and potentially changes the autonomy of the health professionals (Kirkpatrick,I.,Kragh Jespersen,P., Dent,M.,Neogy,I. 2009, Waring 2007a, Waring, Currie 2009, Kurunmäki 2004, Levay, Waks 2009). A characteristic of many of these studies is the plea for focussing attention to the intended as well as the unintended, unforeseen and invisible ways that actors, practices and organisations are changed, and a critical reflection on the high hopes and ideologies provided by these often strong initiatives of improvement (Zuiderent-Jerak, Berg 2010, Timmermans, Berg 2003).

The ambition with this thesis is related to, but slightly different from, the studies briefly described above. I have deliberately attempted to bracket the discussion on improved or

reduced quality and instead investigate the work invested in quality development in the local hospital departments. Although quality development is ultimately about changing clinical practices in the health care institutions, my aim with this thesis is primarily to shed light on the way that the particular details of the local quality development processes develop through shifting connections of actors, of goals, and of quality problems and their solutions, which are continuously defined and redefined. Therefore, I am also interested in the actors engaged in this work, how they become related and how their support of, resistance against or contestations of the quality development initiatives affect the way in which quality work develops. Accordingly, this thesis is not an attempt to define a new way of carrying out quality work or to criticize the existing models or methods implemented to support quality development. Rather, the interest is in paying attention to efforts to organise quality development, and not the least how quality development is made coherent or co-existent with other types of work in health care organisations.

QUALITY DEVELOPMENT IN DANISH HEALTH CARE

In a Danish health care context, the national patient safety system as well as the "The Danish Health care Quality Programme" (DDKM) – an accreditation programme including around 100 quality standards and predefined cycles of quality assessment (Institut for Kvalitet og Akkreditering i Sundhedsvæsenet) – stand out as the settlement of over 20 years of negotiations and attempts to make quality development an integrated and systematic part of health care. Here, the practices of quality development are specified through methods that provide both definitions of quality and tools and timelines for the monitoring and assessment of quality. Additionally, quality development is increasingly settled in formal organisations in the Danish health care sector, for instance through medical societies, national and regional agencies of quality development, and quality organisations within the local health care institutions, such as

hospitals and hospital departments (Knudsen, Fuglholm & Kjærgaard 2004). In this way, quality development has become a mandatory part of health care management and is consolidated as a distinct part of hospital life with its own agendas, assigned actors and tasks. As part of this development, the position of quality coordinators has emerged in some Danish hospital departments. The quality coordinators in these departments are given the responsibility for the implementation of the mandatory components of quality development, defined, for instance, by DDKM. Additionally, they are given the responsibility for the surveillance of the hospital departments' quality level and for initiating processes of improvement when needed. Thus, quality coordinators are given a prominent role in this thesis as key actors in the organisation of quality development in the hospital departments, which constitutes the empirical case of this study.

RESEARCH QUESTION

In this thesis, I argue that we cannot fully understand how quality development affects the health care sector, if we are only investigating it as encounters between the various methodologies of quality development and the ordering of everyday clinical practices. Instead, I suggest, we have to investigate how quality development develops through practices where actors from the local health care settings are continuously connected and re-connected around different quality development initiatives. Hence, we have to study the practices related specifically to the construction of these connections.

Accordingly, this thesis is empirically founded in a study of quality coordinators' work in two Danish hospital departments. Hereby, I explore how particular purposes and tasks of quality development are constructed in the intricate relationship between local health care organisations and international and national ideas of quality development. In the analytical framing of the study, I argue that it can be fruitful to study quality work as sets of distinct but continuously emerging networks, and networks that need to coordinate

and cohere with the clinical context that this quality work is predestined to assess and improve. Thus, I consider quality work as a distinct arc of work in the hospitals, encompassing distinct actors and tasks {{97 Strauss,A. 1997; 88 Strauss,A. 1985} that develop through processes of translation (Callon 1986, Latour 1999b, Latour 2005). Hence, in this thesis, I study a particular kind of organizational work related to quality development and to the creation of the necessary intersections and coherence between quality development and clinical work.

Accordingly I ask:

> How does quality work emerge in the hospital departments as local and specific processes in the intersection with standardised methods and requirements of quality development?
>
> What are the implications for the way in which quality work is organised and managed?

These questions are rather broadly formulated and require some specification. First of all, the notion of *work* draws on the conceptualisations of Strauss and colleagues (Strauss 1985, Strauss et al. 1997) and resembles the tasks that needs to be done in order to carry out what they refer to as an arc of work. An *arc of work* relates to a particular object of work (for instance a patient), an end product (recovery or alleviation) and consists of tasks or groups of tasks carried out sequentially or simultaneously. Additionally, an arc of work entails the presence different actors or groups of actors to carry it out. Following this conceptualisation, I consider quality work as a particular set of tasks in the hospital departments related to various goals and requirements of quality development. I consider quality development as arcs of work that are different from, though deeply entangled with, clinical work, and hence work that can be studied in its own terms.

It would be reasonable to argue that the quality of clinical work depends on much more than the initiatives specifically referred to as 'quality development'. Resources in terms

of time and staff, budgetary constraints, the balance between clinical and administrative tasks, pre- and postgraduate education and training, and the health professionals' experience and ability to react to unforeseen events related to the individual trajectories of treatment could all be expected to affect the quality of health care. Accordingly, quality work could refer to the work of health care staff when taking care of patients, to teaching and supervision etc. However, this thesis is primarily concerned with the work related to monitoring and assessing quality, and to the definition of quality problems and solutions, and hence a delimited part of the work in hospitals that contribute to quality. Evidently, it is still possible to include a vast array of practices in this definition of quality work, as the above could be the jobs of managers on different levels in the hospital or even the professional societies that develop clinical guidelines or standard operational procedures. However, the empirical scope of this thesis is further delineated by the focus on the tasks and responsibilities of the quality coordinators in the hospital departments. From this it follows that this thesis focuses primarily on a highly specific part of quality work related to the officially formulated requirements of quality development, such as monitoring and assessment of quality development, re-formulation of local best practices and so on.

Until now, I have described quality work as a distinct type of work in hospitals. However, it is an important to note that quality work is not approached as a static entity, pre-defined through the many standardised methods of quality development. Inspired by the notion of translation (Callon 1986, Latour 2005, Latour 1986), I take an interest in how actors become connected and how particular definitions of quality problems and their solutions are made possible through these connections. Hence, quality work is not considered as a given, but as an achievement constructed through connections and re-connections of actors.

THE ORGANIZATIONAL SET-UP OF THE STUDY

This study is funded and organised as an industrial PhD. The Danish industrial PhD set-up is a scheme under the Danish Ministry of Science, Innovation and Higher Education involving collaboration between a company, a university and a PhD student. An industrial PhD is co-funded by the company and the Danish Ministry of Science, Innovation and Higher Education, and the university provides the PhD student with an academic environment and support in terms of academic supervisors, a PhD school and working space. The PhD student is employed by the company as well as being affiliated with a public research institution. In this case, I was employed by Danish Institute for Health Services Research (DSI) (now KORA, Danish Institute for Local and Regional Government Research [3]) and affiliated with Department of Organisation (IOA), Copenhagen Business School. Typically, a PhD student in an industrial PhD setup provides research within the company, but in this case the research has been conducted in a Danish hospital, though within a subject of research of high relevance for KORA, whose mission statement is to contribute knowledge that can promote quality improvement, better use of resources and better management in the Danish public sector.

The project proposal was initiated with support from DSI, and the initial research questions concerned the many new actors and institutions related to the organisation of quality work in the health care sector. This proposal was presented and discussed with

[3] KORA was established on July 1st 2012 as the result of a merger of the three former Danish public research institutions DSI, AKF and KREVI. This project was initiated before the merger through my employment in DSI (Danish Institute of Health Services Research), and after the merger the project was continued through my employment in KORA.

KORA is an independent institute under the Danish Ministry for Economic Affairs and the Interior. KORA carries out independent analysis and research for both public and private organisations. The institute advises public authorities and disseminates the results of its work to the relevant public and private stakeholders, and the public in general.

people from IOA, and this resulted in an application to the Danish Ministry of Science, Innovation and Higher Education in the summer of 2010. The project became accepted later the same year. However, the project was not initiated till 2012[4]. Throughout the course of this PhD study, I spent about half of my time in IOA and participated as an integrated member in both academic and social events. Additionally, I have carried out work in KORA on projects related to the subject of the PhD study, spent time there while writing the thesis and participated in organizational events and meetings.

THE STRUCTURE OF THE THESIS

This thesis is structured into three parts. In the remainder of this the first section, I will introduce the empirical field and the broader context for quality development in Danish health care. Here, I introduce the current landscape of quality development and provide an account of the historical roots of this landscape, as well as the critique of the current national frameworks from stakeholders in the Danish health care sector. Then, I provide an introduction to the specific empirical case and describe the general organizational structure and how quality development is organised and embedded in both the hospital and the two departments. In this chapter, I also introduce the quality coordinator as an organizational figure that developed as a reaction to the many requirements related to quality development and changed organizational conditions within the departments.

In part two, I turn to the methodological and theoretical framework of the thesis. I begin in Chapter 4 with a description of the original ethnographic strategy, and reasoning behind it, and of how I began formulating questions to the material that I constructed through the fieldwork, which consisted mainly of participant observation. Together with the literature review (Chapter 5), these questions became pivotal to the way I constructed the analytical framework, emphasising quality development as sets of emerging networks

[4] Due to maternity leave in most of 2011.

of actors connected through processes of translation. Accordingly, in Chapter 6 I explicate my analytical framework inspired by the conceptualisations of work (Strauss 1985, Strauss et al. 1997) and Actor Network-Theory. In Chapter 7, I outline the methods used in this study.

In the third part of this thesis, I offer the empirical explorations of the continuously emerging and temporal connections of quality work in relation to three empirical cases. In the first analysis (Chapter 8), I explore the mutual process of formulating (and reformulating) the purpose of a quality development project and engaging significant actors in this project. The purpose defines what should be improved, but implicitly also who becomes significant participants and accordingly obligatory and/or unavoidable to engage in the process. Towards the end of this analysis, I discuss the quality coordinators' attempts to foresee what motivates the different groups of staff to be engaged in the project, and how this is challenged by unforeseen shifts in motivation.

The next analysis (Chapter 9) explores the efforts of constructing, storing and utilising quality data. This analysis shows how quality data is a result of a process of translation that relies on specific criteria for the judgment of the departments' quality levels. Thus, the quality data enables the quality coordinators to prompt reflection among staff and managers upon specific parts of the clinical work. Still, the utility of these data – as a point of connection in a further process where distinct quality problems are defined – relies on a greater effort than the generation of quality data. Quality data are simplified representations of a far more complex network of actors and tasks, and accordingly of possible reasons for the indicated (low) level of quality. Thus, in order to delineate a distinct focus of attention in the further process of quality improvement, the reintroduction of the details of the clinical work that quality data represents is needed.

The third and final analysis (Chapter 10) investigates how the quality coordinators contribute to the processes of quality development from an organizational position

outside both management and clinical work. A characteristic of the process outlined in this chapter, as well as the other analyses, that it is a short-term project aimed at changing a delimited section of work. Each new quality development project is a new situation in which purposes and problems need to be defined and negotiated anew, and where the involved actors are not aligned beforehand. Hence, an important task for the quality coordinators is to frame these alignments in a way that is both strategic and adaptive to the specific, local and temporal contingencies.

In the final part, I present the main findings of the thesis and discuss the implications of these for practical conduct of quality development and for future research.

QUALITY DEVELOPMENT IN A DANISH CONTEXT

In this chapter, I describe quality development in a Danish health care context with the aim of providing the reader with an understanding of the historical, technological/methodological and organizational context of the analyses in this thesis. First, I will describe quality development as being of a fluid and changeable nature, after which I will counter this by describing it as consisting of firm rules of method, dedicated technologies and organizational structures in Danish health care. Finally, I will turn to the prevailing critique of the current national framework for quality development and position this study in the midst of a field of multiple agendas, concerns and opinions.

THE MANY AGENDAS OF QUALITY DEVELOPMENT

According to WHO's definition (World Health Organization 2006), quality in health care is related to effective and evidence-based care, efficiency, patient preferences, accessibility and equitability (see Figure 1).

Figure 1: WHO's definition of health care quality (World Health Organization 2006)

- Effective: delivering health care that is adherent to an evidence base and results in improved health outcomes for individuals and communities, based on need
- Efficient: delivering health care in a manner which maximises resource use and avoids waste
- Acceptable/patient-centred: delivering health care which takes into account the preferences and aspirations of individual service users and the cultures of their communities
- Accessible: delivering health care that is timely, geographically reasonable, and provided in a setting where skills and resources are appropriate to medical need
- Equitable: delivering health care which does not vary in quality because of personal characteristics such as gender, race, ethnicity, geographical location, or socioeconomic status
- Safe: delivering health care which minimizes risks and harm to service users.

The last two bullets in this definition call for more structural and political actions, whereas the first three are closer to the aspect of quality development studied in this thesis. This definition was referred to during the fieldwork of this study and is also explicitly mentioned in the majority of Danish textbooks on quality development, as well as in many policy documents (Mainz et al. 2011, Kjærgaard et al. 2001, Kjær et al. 2004, Det nationale råd for kvalitetsudvikling i sundhedsvæsenet 2002).

Starting at the top of the WHO definition; evidence and evidence-based medicine (EBM) play a predominant role in health care quality development. EBM emerged as a reaction to the findings that great variation exists in the treatment provided to patients with the same symptoms and diagnoses (see (Wennberg, Gittelsohn 1973) for an often cited reference), and is now considered a cornerstone in medicine (Vallgårda 1992,

Timmermans, Berg 2003). In quality development, the importance of EBM is also emphasized as an active ingredient, because it provides the evidence-based basis of the clinical practice (Mainz, Påske Johnsen & Bartels 2010); in other words, it sets a standard for the delivery of health care services. In several Danish textbooks on quality development in health care, quality is described as occurring in a dynamic relation between medical research, health technology assessments (an assessment of the conditions for and the consequences of a form of health technology) and quality development. Where *medical research* lays the ground for definitions of 'best practice', *health technology assessments* judge the feasibility of these supposed best practices and functions as a tool of prioritisation, and *quality development* is practices related to the implementation of quality standards and priorities depicted by the former two components (Mainz et al. 2011, Kjærgaard et al. 2001, Mainz, Påske Johnsen & Bartels 2010). Thus, quality development encompasses the following list of activities:

> (…) problem identification, definition of quality goals, quality measurement, quality assessment, feedback to the involved health care staff, analysis of underlying causes of quality break downs, implementation of changes aimed at improving the quality and renewed quality assessment in a continuous cycle (Kjærgaard et al. 2001, author's translation and emphasis)

Additionally, EBM can also be seen as related to quality development by being part of a standardisation movement. Here, the purpose of standardisation is to ensure that all patients receive the same effective and efficient treatment (Timmermans 2010, Light 2010, Light 2000), when they are treated for the same conditions. However, objections have also been raised against standardisation and what is referred to as 'cook book' medicine, which, it is held, erodes the individualised adjustment of medical care and devalues the worth of professional expertise and autonomy (Timmermans 2010). Nevertheless, standards constitute a considerable part of quality development

(Timmermans, Berg 2003), and in a Danish context these have materialised into clinical guidelines (Kürstein Kjellberg 2006), joint health plans (Juul Nielsen 2010) and cancer packages (Task Force for Kræftområdet 2008) describing central elements of the delivered service in relation to specific patient groups. To a certain extent, these standards can be related to the ability to control the services delivered and the possibility of holding the health professionals accountable for their work. Hence, and in contrast to EBM, this accountability endeavour (Wiener 2000, Power 1997) cannot only be seen as an expression of an interest 'from within'. Rather, there is a clear connection to a larger societal movement that emphasises and values the option of surveillance and control of organizational practices. In this way, quality development shares ideas with scientific management and bureaucratisation, where clearly defined goals, rational planning and monitoring of activities are considered basic values (Friis 2014).

Standardisation is not only related to the conduct of treatment and care of patients. Practices related to quality development are also formulated as standardised steps to be followed when monitoring, assessing and analysing quality, and some authors even talk of 'evidence-based quality development' (Mainz, Påske Johnsen & Bartels 2010). Among such sets of quality development standards are, for instance, the many programmes of accreditation (see below for an introduction to the Danish version) encompassing both quality standards (most often procedural standards) as well as standards describing the tasks and time structures related to the monitoring and analysis of quality.

However, quality development also encompasses agendas beyond standardisation. If we return to the WHO definition of quality in health, patient centeredness appears alongside effectiveness, efficiency etc. This part of the definition refers to a certain extent to an increased attention to consumers' (in this case patients or citizens) right to, desire to and ability to engage in the definition of the goods provided (treatment and care) (Zuiderent-Jerak, Berg 2010, Kuhlman 2006a, Friis 2014, Light 2010, Light 2000, Bird

et al. 2010). Additionally, the ideal of patient-centred care can be referred to a recognition of the situated nature of quality and hence delivery of 'good care' (van Loon, Zuiderent-Jerak 2012). This perspective then opens up for attentiveness to the individual patient's needs and becomes a counter position to the emphasis on standardisation and uniformity:

> From the client-centred perspective, good care is generally perceived to be a more individualised matter; good care is shaped in individualised situations between client and caregiver. Variety thereby seems to reclaim a central position in the definition of quality (Ibid: 120).

Ironically, even this ambition of patient-centred care has also been approached through the use of standardised packages of methods (Vyt 2008, Oandason, Reeves 2005).

Patient centeredness has also been inscribed into an agenda of coherence and coordination(Mainz et al. 2011, Freil, Knudsen 2004). This theme is one of the newer agendas of quality development and is introduced as a reaction to the increasing specialisation in the health care sector and, as a consequence, an increased need for coordination of the individual care trajectories across professional and organizational boundaries. Coherence and coordination is considered a precursor of higher quality, reduced risk/increased safety, increased patient satisfaction and increased efficiency (Allen 2009, Gittel 2012, Pinder et al. 2005)(Martin, Larsen 2012), and as such it has also become an explicit part of the overall quality development agenda.

Following Power (1997) who claims that audit *"is an idea as much as it is a concrete technical practice"* (Ibid:5), I would claim that the same goes for quality development, though with a slight reformulation emphasising that quality development comprises several ideas and technical practices. In this section, I have concentrated on some of the major agendas of quality development in health care. These can be summarised as relating to different ideas of what constitutes good quality (e.g. effective and efficient

care, patient centeredness, coherence/coordination) and different ideas of what contributes to quality development (e.g. guidelines, standardisation, situated/individual care). This, quality development is multifaceted and is constituted by many ideas of *"what it means to do quality improvement in health care"* (Zuiderent-Jerak, Berg 2010: 326), but it is also dynamic and changeable as new agendas are continuously introduced.

In the following, I will turn specifically to the national framework for health care quality development in a Danish context. Additionally, I will account for the way in which quality development is institutionalised as a permanent part of Danish health care.

A Danish framework of quality development in health care

The Danish health care sector is primarily a tax subsidised system. The hospitals are run by five national regions, whereas primary care is run by 98 municipalities. Despite the decentralised management of the health care sector, the regulation, both in terms of budgets and the services provided, is by and large provided by the state or national agencies. As in many other countries there has been a historical shift away from medical dominance, when it comes to quality development (Knudsen, Christiansen & Hansen 2008). The efforts to ensure quality development of clinical work have historically been a concern of the health professions, but a weakened status of the medical professions is often used as an explanation of the movement towards increased external interference with clinical work (Knudsen, Christiansen & Hansen 2008, Light 2010, Light 2000, Albæk 2009). In a Danish context, this has been described as follows:

> If quality is considered as a kind of institutionalised concept in the hospital sector, then this institution has undergone a transformation. 'Quality' has been transformed from being an institution that the health professions and the occupational groups in the hospitals monopolised into an institution that is developed through a much more extensive process that implies the involvement of actors outside the professions, including the patients. What quality is and how it should be obtained is decided by a

> combination of professional requirements and the requirements of users and society as such, with regard to the functionality and effectiveness of health care (Albæk 2009: 9, author's translation)

In a newer attempt to describe the political instruments used in the regulation of quality in Danish health care over the last 20 years, a main conclusion is similarly that regulation of quality has developed from being a local self-regulating practice performed by the health professionals into increasingly being an externally defined practice. Additionally, the field has shifted from only using instruments aimed at developing quality on the premises of the local health care institutions to focussing more on the importance of shared standards and comparable data on quality (Knudsen, Christiansen & Hansen 2008). As we will see in the following, this culminated with the development and implementation of the Danish Health Care Quality Programme.

The Danish Health Care Quality Programme (DDKM)

The concern for quality and quality development is not new. Yet in Denmark, the 1990s marked a shift towards an interest in a more systematic and formalised approach to quality development (Knudsen, Christiansen & Hansen 2008, Albæk 2009). Though quality development was not a new priority in health care, this period was characterised by arguments for the necessity of formulating a national framework of quality development, with emphasis on transparency and comparability of quality status in Danish health care (Knudsen, Christiansen & Hansen 2008). In 1993, the first national strategy for quality development in health care was conveyed (Sundhedsstyrelsen, Sundhedsministeriet 1993), and after some years of debate about the content of a national framework that took the requirements of both the public and health professionals into consideration, the Danish counties agreed to prepare a shared model of quality development (Knudsen, Christiansen & Hansen 2008, Knudsen, Fuglholm & Kjærgaard 2004). In the beginning, these national initiatives were rather general in

nature and did not place specific demands to the delivered quality. Rather, they were characterised by being formulated as declarations of intent, specifying that every health care institution should work systematically with quality development (Albæk 2009). Instead, several initiatives[5] were taken to organise quality development through the assessment of evidence-based clinical standards. Some of these were mandatory while others were not.

While the first ten years of interest in methods of systematic development were characterised by a minimum of specified demands, the next ten years were characterised by development of methods that used more clearly defined definitions of quality (Albæk 2009, 8). In these years, the North American accreditation organisation, Joint Commission International Accreditation (JCI), and the British equivalent, Health care Quality Service (HQS), became sources of inspiration. These two organisations were enlisted by two Danish counties in the early '00s in order to develop a common ground for quality development. These institutions provided the Danish hospitals in the two counties with a set of predefined quality standards and an external evaluation (and potentially a status as accredited) by an independent institution. This served as an inspiration for the later decision to use accreditation as the basic principle in the forthcoming national quality model (Knudsen, Christiansen & Hansen 2008), and in that way it became a precursor of the later DDKM.

In 2002, the second national strategy of quality development was published. Here, the ambition of developing a shared evaluation tool based on Danish standards following the principles of accreditation were formulated (Det nationale råd for kvalitetsudvikling i sundhedsvæsenet 2002). The idea was to create a model consisting of three elements:

[5] For instance, "Den Gode Medicinske Afdeling" [A Good Medical Department] initiated by Copenhagen County, and the nationally initiated "Det Nationale Indikatorprojekt" [The National Indicator Project].

1. A shared basis for evaluation based on organizational, general and disease-specific standards and associated indicators
2. Shared methods of evaluation based on continuous self-assessments and periodic external evaluation (accreditation)
3. A shared reporting system on adverse events.

Before the first version of this model was developed and finally launched in 2009, other initiatives were introduced and evaluated, and there was an ongoing debate as to the necessary key elements in quality development. The patient's voice, for instance, was considered important, as it was argued that the patient was the only party who was present throughout the entire course of a treatment (Freil, Knudsen 2004). At that time, a national survey of patient experiences had already been initiated, and it was decided that this should become an integrated part of DDKM. Additionally, the newly initiated framework for the (Pedersen, Mogensen 2003)reporting and analysis of adverse events {{191 Pedersen,B.L. 2003}} was considered relevant to incorporate as part of DDKM. Finally, a set of rules related to, for instance, reporting on medication side effects and rehabilitation plans was built into the model (Institut for Kvalitet og Akkreditering i Sundhedsvæsenet).

Then followed a process in which specific Danish standards were developed in collaboration with the British Health Quality Service and with participation from more than 300 Danish health professionals. The result was 104 quality standards divided into three areas , i.e. generic, disease specific and organizational. In 2009, the first version of the Danish Health Care Quality Programme (DDKM), including the 104 standards, was conveyed to hospitals, and this constitutes one of the major and important frameworks of quality work in Denmark (Institut for Kvalitet og Akkreditering i Sundhedsvæsenet). In 2012, after the first round of accreditation of the 53 public hospitals, this model was

revised (Institut for Kvalitet og Akkreditering i Sundhedsvæsenet 2013), and currently Danish hospitals are facing their second round of accreditation.

The components of DDKM

In the preface to first version of DDKM, the model is described as follows:

> Over time, DDKM will become a comprehensive, integrated and joint system for quality and assessment of important services and activities in health care. Overall, DDKM is to support and promote systematic, continuous quality development in the [health care] sectors (Institut for Kvalitet og Akkreditering i Sundhedsvæsenet, author's translation)

The programme follows a cyclical template structured by the PDSA cycle, which takes care of the continuous monitoring of compliance with predefined goals (e.g. predefined quality standards), so practices of clinical work can be redesigned or changed accordingly. Additionally, the programme is a system of accreditation and follows a four-year cycle of external assessment, where the hospitals are evaluated by an external survey team.

The second version of the programme (Institut for Kvalitet og Akkreditering i Sundhedsvæsenet 2013) comprises 80 standards with at least four indicators, following the steps of the PDSA cycle. Hence, indicators are formulated on four levels. The first level is concerned with the presence of a guideline describing the services related to the given standard. The second level of indicators is concerned with the staff and managers awareness of the presence of this guideline, whereas the third level of indicators is concerned with monitoring of compliance with the standard. Finally, the fourth indicators are concerned with implementation of changes with a view to increase the compliance with the standard. The methods of assessment within this regime can take many forms. However, audit stands out as a distinct and preferred method in the programme.

THE NEW INSTITUTIONS OF QUALITY DEVELOPMENT

In 2004 (i.e. during the developmental phase of DDKM), the Ministry of Health, the National Board of Health and the counties agreed to establish a national accreditation institute (IKAS) (Knudsen, Christiansen & Hansen 2008). This institute was to be responsible for the establishment and further development of DDKM, for the provision of the standards that are to serve as the basis of the quality evaluation of the health care institutions and for conducting the accreditations. The Ministry of Health, the National Board of Health and the counties were represented in this process as members of IKAS's board, but the responsibility for the institute was given to a director and a secretariat. The establishment of IKAS is indicative of a general development according to which quality development has become an increasingly consolidated and permanent part of health care with its own institutions, organisations and assigned actors. In a presentation[6] from the annual meeting of the Danish Society for Quality in Health Care in 2014 the chairman, DMSc, Knut Borch-Johnsen presented the development of quality work from 1990 to 2013. Here he characterized this development as a shift from work carried out by dedicated individuals to work embedded in a 'matured organisation' that encompasses quality organisations in both regions and local health care institutions (including hospitals), in national societies for both quality and patient safety, in a national institution for accreditation (IKAS) and a central secretariat for the national databases of clinical quality. In the next chapter, I will return to this theme of 'quality organisations' in relation to the specific hospital departments that constitute the empirical cases of this study.

[6] http://www.dsks.dk/filer/aarsmode%202014/fre_dsks_borch_johnsen.pdf

THE CRITIQUE OF THE CURRENT ORGANISATION OF QUALITY DEVELOPMENT

Despite the increased institutionalisation of quality development in health care, the current framework for quality development in Danish health care has not been implemented without resistance. It has been criticised on several points, but the lack of 'evidence' stands out as one of the most prominent. In the health professions, and especially among doctors, there is a strong quest for evidence-based quality development, and one of the critiques of DDKM is that the effects of accreditation remain unproven. In the Journal of the Danish Medical Association, there is an ongoing debate about the lack of clarification of the evidence behind DDKM. In 2011, an international study published by the Cochrane Collaboration revealed that only two studies were performed to investigate the effects of accreditation, and none of these studies were able to show consistent and convincing effects. The authors concluded that: *"No firm conclusions could therefore be drawn about the effectiveness of external inspection on compliance with standards"* (Flodgren et al. 2011: 2). The response from the director of IKAS, Jesper Gad Christensen, was that the result was unsurprising. Accreditation is a multifaceted intervention, and it would be impossible to design an evaluation that would accommodate the research requirements of the Cochrane Institute and allow it to become part of their review, he argued (Rasmussen 2011). To accommodate the critique that followed, he and other contributors to this debate (Steenberger 2011a) referred to another newly published study from Australia, which underlined the possibility that accreditation had influenced the organizational culture and management in 20 Australian hospitals (Braithwaite et al. 2010). However, this study has not succeeded in silencing the critique of the evidence-based assets of accreditation and hence DDKM. In order to accommodate this critique, IKAS developed a research strategy that focuses on the provision of evidence-based knowledge about the effects of the model[7].

[7] http://www.ikas.dk/IKAS/Virksomhedsgrundlag/Forskningsstrategi.aspx

However, the lack of evidence-based knowledge about the methods used in quality development has not only led to criticism of the methods themselves, but also criticism of the actors who advocate or are directly involved in the implementation of the methods. When arguments cannot be based on facts, the criticism states they must be based on beliefs. Connotations such as '*polemic*' and '*argumentation based on subjective accounts*' are used to describe of the parties in the debate over who favours the present methods of quality development (Kristensen 2011). In opposition to the apparent religiosity of actors dedicated to quality work, doctors are accused of being absent in quality development. In relation to this absence, the former president of the Danish Medical Association (Hansen 2013) has also implied that professional irrelevance and uncoordinated initiatives are a major reason for the doctor's disinterest in the quality development processes. Some even go so far as to speak of a 'busy quality and safety industry' preoccupied with commissions, initiatives and programmes, and totally separated from the world of doctors, "*... that are actually delivering the health care with little buy-in to the quality and safety agenda"* (Buist, Middleton 2013). Others have stated that the quality work, when it is placed in the hands of assigned quality workers, has moved too far away from the clinical realities in hospitals to be truly relevant for the clinical staff (Nørrelund 2012). In contrast, the doctors' engagement in the quality agenda is supposed to be a premise for the design of initiatives programmes etc. that are perceived as relevant. Accordingly, a need of not requiring the people engaged in quality development to leave their offices and face the clinical realities is formulated, as well as a need for getting the doctors engaged in the quality agenda, (Buist, Middleton 2013, Gerdes 2013, Steenberger 2012, Hansen 2011).

As a continuation of the reluctancy of doctors debate, a debate on the implications of the model when used in practice is put forward. The main concern in this debate is the workload related to documentation. For instance, in a chronicle written for Politiken,

one of the major Danish newspapers, a young doctor told of how he spent half of his shift on documentation. In an interview to the Journal of the Danish Medical Association he elaborated on his opinions:

> My point is that what we do in order to improve quality and safety takes up so much time that it ends up harming exactly the things that it is supposed to benefit. If you look at the overall treatment efforts, you have to ask whether the quality is improved because of the documentation. The answer is no. Maybe it has improved on some parameters – but the time it has taken to achieve a higher score here has been taken from other areas, in which the quality has decreased. Overall, there is no improvement (Steenberger 2011c, author's translation)

This quote also reflects disbelief in the basic components of DDKM. Thus, the practices of documentation are not merely considered irrelevant because of the time it takes from other types of work, but also because the prime reason for documentation is related to 'achieving a higher score'. This quote is of course related to a pending debate and makes use of a strong rhetoric, but it reflects a more general criticism that considers documentation and accreditation as related to 'showing off' and as separated from the clinical work (see for instance (Wiener 2000))

A fourth theme in the debate about DDKM is the focus on processes[8] instead of the core tasks in health care (performance standards). Standards related to direct patient care are ruled out, and this is pointed out as a weak spot in the Danish as well as the international accreditation models. This was an argument for moving away from the international models that were already in use and instead developing a Danish model (Larsen 2003). However, a remaining point of criticism that the model – even in its Danish form – fails to evaluate the most crucial aspects of the health care service, and it has been called a *'a ridiculous model'* that uses '*surrogate measures of quality*' (Bjerre 2010,

[8] For instance, there are standards for the presence of a quality organisation, for guidelines on everything from screening of pressure ulcers to refrigerator temperatures and for correct administration of guidelines.

Holm-Petersen, Wadmann & Vejen Andersen 2015). Instead, it is argued, attention should be paid to the quality of the core activities in health care and a national model of quality development should include clinical guidelines specifically (Steenberger 2011b, Heinskou 2011).

Quality development beyond or after DDKM

DDKM is given considerable space in this chapter. Redraw DDKM is a clear indication of the considered importance of decision makers and stakeholders in making quality development a systematic and integrated part of health care. Still, a very recent development in the field of quality development in Danish health care is the announcement of the Danish Ministry of Health, in April 2015, that DDKM would be Withdrawn and replaced by a simpler model with fewer nationally formulated quality standards. Instead, there should be more emphasis on the local hospital department, right to defining own goals of quality and the provision of relevant real-time data on performance through investments in the national clinical quality databases. This announcement was part of the ministry's strategy paper 'National quality programme for the health care sector 2015-2018', which also emphasised the manager's role and what they call 'a learning culture', which is defined as a situation where: *"(...) you [the health professionals] go to work every day with the ambition of doing your job a little better than you did yesterday"* (Ministeriet for Sundhed og Forebyggelse 2015: 6). Interestingly, this strategy paper also criticises DDKM for being too bureaucratic and placing too much emphasis on control and documentation, and calls for a greater space for health care professionals to work with quality development initiatives that are meaningful to them in their specific clinical situation (Ibid). Hereby, it voices the criticism of DDKM put forward by the health care professionals for several years, but still emphasise the need for a national model that retains a systematic focus on quality development and that this work should be data driven – though with slightly different goals and means.

The ministry's announcement sent a shock wave through the system and led to reflections on what would be gained and lost by 'sacking' DDKM. In a meeting which I attended in the beginning of May 2015[9], some Danish hospital directors expressed a concern for losing an important tool of motivation for change (or a means of putting pressure on the clinical departments) with the removal of the sense of importance provided by accreditation. Others expressed a hope that quality development using this new approach would become much more closely attached to the clinical managers and clinical staff instead of being a concern mostly for employees in the hospitals' quality organisations.

Clearly, this newest development is not reflected in the empirical material of this study. But it is interesting to mention here as a telling case of quality development as a dynamic field, in which new frameworks of how to conduct quality development seem to emerge, live side by side and replace each other at a considerable pace. However, even the most minimalistic frameworks for quality development apply for a systematic approach that encompasses methods of quality assessment, problem identification and analysis.

Concluding remarks

In this chapter, I have provided an introduction to the landscape of quality development as being embedded in a set of general ideas, and I have described how these ideas have settled in a Danish context. Quality is a broadly defined concept that allows many ideas, activities and technologies to be placed under the heading of quality development. Many of the concrete initiatives include predefined goals for quality development, as well as firm framings for how quality development should be performed. These framings are not always compatible with each other, and critics have called this landscape incoherent. In a Danish context, the development of DDKM stands out as a manifestation of many years

[9] The annual meeting of the Society for Hospital Directors.

of work towards a national framework for quality development that encompasses most of these ideas and practices. Even though DDKM was developed as a framework that was supposed to ensure quality development as a uniform and integrated part of health, it is interesting to note that the debate in the health care sector points to the possibility of disintegration of the efforts of quality development. This lack of integration is not only related to the plural nature of quality development, but to the challenges of making quality development activities cohere with clinical work and engaging the staff in them. However, quality development has solidified as an explicit part of health care through separate organizational structures, and the question is whether this has brought quality development closer to the health care organisations or led to a gap that needs to be breached.

This study is positioned in the middle of this 'blurred picture' of quality development *and* embedded in or performed next to everyday clinical practices. I wish to look into those practices that enable the coexistence between different frameworks and between quality development efforts and clinical work. How are the tensions –increased by the heated debate about the current frameworks for quality development – acted upon and resolved? And last but not least: who carries out this work? These are some of the questions that initiated this study, which is also reflected in the choices behind this study's empirical strategy and analytical framing. I will return to these choices in Chapters 4, 6 and 7, and in the following chapter the concrete empirical case of this study will be introduced.

INTRODUCING THE EMPIRICAL CASE

In the following, after the introduction to the broader empirical context of quality development in Denmark, I will introduce the hospital and the two hospital departments in which this study took place. Additionally, I will provide a description of the pivotal empirical figure in this thesis; the quality coordinators. The reasons behind the specific choices of these empirical fix-points are given in Chapter 4.

THE HOSPITAL

The study was performed in a hospital[10] in the Copenhagen area. This hospital had the status of a community hospital, with a medical department and emergency ward, and was a hospital with specialised functions in areas such as neurology, ophthalmology, rheumatology and severe back diseases[11]. As such, the hospital served the citizens of the five surrounding municipalities (133,000 citizens), and in the specialised areas also the citizens from the Capital Region[12] and the rest of the country.

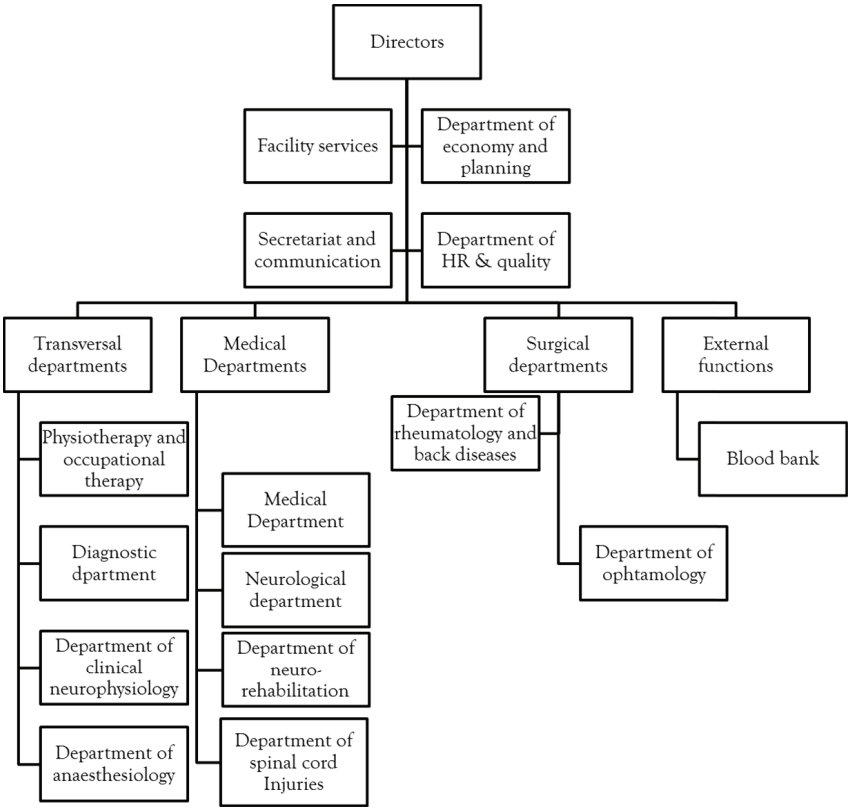
The hospital was managed by a hospital director (administrative director) and two deputy directors (a nurse and a doctor), and besides the clinical departments the hospital organisation included administrative and servicing departments (see Figure 2).

[10] I have made a deliberate choice of referring to the hospital instead of calling it by its actual name. To my knowledge, I have not observed or presented anything that could compromise the hospital, the departments or the staff in this study, and none of my informants requested anonymity. However, in order to avoid any unintentional disrepute I have chosen to blur the identity of both the hospital and the persons in the fieldwork. When referring to the departments, I refer to the surgical or medical department, for instance, and hence by their medical specialty instead of their name. The same goes for the department wards. All persons in this text are given other names (see Appendix 1), though I refer to their actual positions.

[11] After I had finalised the fieldwork, the Capital Region implemented a new hospital structure, and the presented organizational traits have already been radically changed.

[12] One of the five Danish regions – a politically led authority managing the hospitals.

Figure 2: The organizational chart of the hospital (adapted by the author from the hospital's webpage)



The quality organisation of the hospital

As previously mentioned, the quality and safety movement did not only materialise into a number of methods, programmes and technologies of quality development. Quality had also become part of the hospital's organisation through quality departments, quality policies and assigned quality staff. The establishment of quality organisations in the local health care institutions such as hospitals can at least to some extent be ascribed to

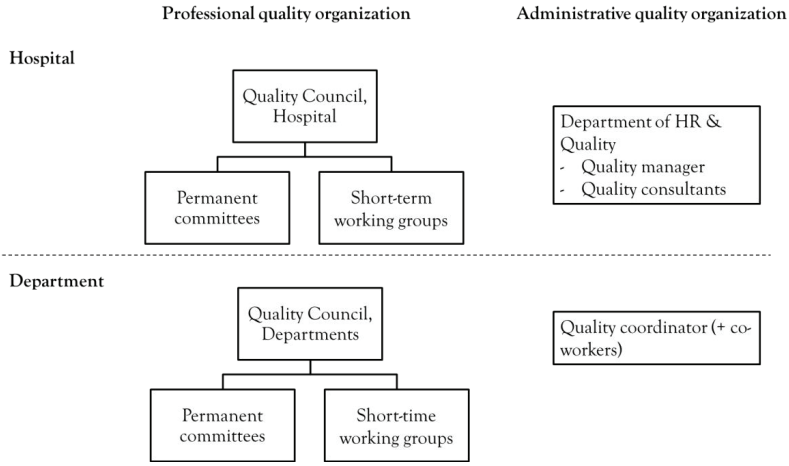
DDKM and the standards that state a need for a policy for quality development and a quality organisation (Institut for Kvalitet og Akkreditering i Sundhedsvæsenet).

In the hospital, the policy for quality development described the political and administrative frameworks for quality development[13], the hospital's quality organisation and the principles for quality assessment and development. The quality organisation in the hospital consisted of a central (hospital level) and de-central (department level) quality organisation. The central quality organisation consisted of a quality council with participation from the hospital board of directors and managers from the clinical and service departments. According to the quality policy, the purpose of the quality council was to formulate overall policies, strategies and action plans for quality development, to ensure a general overview over the level of quality in the hospital and to appoint short or long-term working groups responsible for specific parts of quality development, such as patient safety, patient records, document control or patient rehabilitation.

As illustrated in Figure 2, showing the organizational chart of the hospital, quality was also given an explicit position as part of the hospital's administrative functions through the department for HR and quality. Here, the hospital's quality manager and a team of quality consultants were positioned, and in the quality policy their function was described as advisory and servicing in relation to the hospital directors and the departments, and coordinative of the overall strategy described in the quality policy.

[13] For instance, national requirements formulated in DDKM, the health care act and regional requirements formulated in the regions quality policy.

Figure 3: The quality organisation (adapted by the author from the hospital's quality policy)



Accordingly, and as

Figure 3 also illustrates, the quality organisation was structured as both an administrative organisation, with actors working with quality development on a fulltime basis, and a parallel organisation relying on the participation of managers and staff. As we shall see in the following, this structure was also replicated in the departments' quality organisations.

THE DEPARTMENTS

The medical department was the larger of the two departments. The medical department treated patients suffering from medical diseases under the specialty of internal medicine, including the sub-specialties of gastroenterology, cardiology, lung diseases, endocrinology

and geriatrics. The department consisted of 12 wards, including outpatient clinics and bed units covering the subspecialties and an emergency ward. According to the department's webpage, the department handled around 7,000 hospitalisations annually and more than 30,000 visits to the outpatient clinics. The staff consisted of approximately 60 physicians, 135 nurses, 50 health care assistants and 35 secretaries.

The *surgical department* treated patients with diseases and injuries of the back. The department, staffed by approximately 200 persons, consisted of six wards: two outpatient clinics, a surgical ward, two bed units for surgical patients and a bed unit for rheumatology patients. The department received around 53,000 patients per year in the outpatient clinics and performed 2,000 operations per year.

Despite their differences in size, the basic organizational traits were similar as each of the clinical departments was managed by a team consisting of a chief physician and a head nurse, who were responsible for the department's economy, staff and quality of services. The individual outpatient clinics, bed units and surgical units were managed by a ward sister and a consultant physician (in the following, I will refer to these as clinical managers), of which the ward sister was typically preoccupied with administrative tasks whereas the consultant doctor also performed clinical work alongside his administrative obligations.

The quality organisation of the departments and the quality coordinators

The departments' quality organisation was similar to the central quality organisation, with an overall and strategic quality council consisting of the department managers, representatives from clinical managers and staff, as well as various committees or working groups made responsible for specified themes of quality development. In similarity to the hospital's quality organisation, both departments had at least one formally assigned person responsible for quality development. I refer to these as quality

coordinators, as this was the title used in the hospital to refer to that specific function, although the quality coordinators in the two departments used the titles 'Clinical Head Nurse' and 'Quality and Development Nurse', respectively.

The quality coordinators' tasks and positioning in the department organisations varied, though many of their tasks were directly related to the same national and regional requirements to quality development. According to the hospital quality policy, the quality coordinators had a double function. On the one hand, they were to keep track of and assist the department managers in planning and implementing the many processes inherent in quality development. On the other hand, they were to act as connectors between the department and the HR & quality department, for instance by ensuring the implementation of nationally and regionally required initiatives of quality development. More specifically, the quality coordinators were responsible for the planning and execution of various types of quality assessments, like audits, for the surveillance of compliance with quality standards and for taking adequate action on adverse events according to the national patient safety system - just to mention a few of their remits. However, their scope of action was also affected by the individual department managers and was also related to the other support functions of the department (e.g. IT and secretary functions, pharmacists, research functions etc.). In contrast to other departments in the hospital, where the quality coordinator function was a part-time position, the quality coordinators in both the medical and the surgical department occupied a full-time position. However, in the surgical department the quality coordinator was the head of a small team of three quality consultants, whereas the quality coordinator from the medical department worked alone, but still in close cooperation with the department's pharmacist, an IT officer, the principal secretary and shifting temporary employees hired to assist the quality coordinator with various communicative tasks (e.g. patient information).

According to the quality coordinators themselves, the department managers and the hospital's quality manager, the need to introduce a quality coordinator position in the departments grew out of an increasing amount of tasks related to quality assessment and development and an increased recognition of quality development as a field that needed special attention. Accordingly, the most innovative department managers started to establish quality coordinator positions, and later on almost every department had a designated person who was responsible for quality development. In the interviews with the head nurse and chief physician in the two departments, the quality coordinators were described as indispensable, because they took charge of all the processes related to quality development. At the time of the interview in the medical department, the hospital was in the middle of a merger, and no one really knew what would happen with the administrative function in the department in the future and thus whether or not there would be a quality coordinator position. This led to reflection regarding the performance of quality development with or without quality coordinators and additional explanations of their value:

> I: But who will then [if the quality coordinator position is not carried on into the new organisation] take care of quality development?
>
> Head nurse: Well that would be me, but I simply do not have the time to go into the details of all the things we have to do in this area. This is why it is so important that the quality coordinators are able to work independently, because they cannot come running to me all the time.
>
> I: Ok, but it is not that many years ago that you did not have a quality coordinator in the department. Who was all this taken care of then?
>
> Chief physician: The number of things that we have to do in relation to quality development has exploded in the last few years, and there is more work to do than any of us [head nurse and chief physician] can manage. Previously, the head nurse was

capable of managing quality development alone. You cannot imagine all the things we have to document now.

I: So you think there is too much?

Chief physician: I think there is one thing that is important to understand. In the old days, the doctors would take their rounds with a whole entourage of nurses, residents etc. Now we [the health professionals] are working more and more independently and separately, and this poses new challenges to how we make sure that we deliver the best possible service. But of course we can always discuss exactly what we are documenting.

Whether the head nurse and the chief physician's analysis of the changed circumstances for developing quality was a generally shared understanding is of course difficult to say. However, they do contribute with interesting explanations for the need of both the quality coordinator function and the explicit quality organisation that reaches beyond the many requirements related to the present health care quality development. First of all, they describe a situation in which the amount of effort made necessary in relation to quality development has grown out of the hands of the department managers, and in particular out the hands of the head nurse, who was formerly the 'natural' anchor person for quality development. This explosion in quality-related tasks can in part be traced to the increased public and political requirements of transparency and control, but a different way of organising the different parts of the trajectories of treatment and care also has to be taken into consideration. According to this chief physician, some of the former arenas of mutual adjustment between the implicated staff have evaporated, and in their place new arenas have to be created. Documentation practices and explicitly assigned actors in the field of quality development must be seen in relation to this development, he says.

Returning now to the characteristics of the quality coordinators from the surgical and medical department, they shared a common background as nurses and former head

nurses of either a ward or a department. They were familiar with the daily routines of a hospital department, including the planning horizon and the typical workflows within and across departments. Often they referred to this as a particular important skill, as many of their activities were about timing – or more precisely making the right people meet at the right place at the right time. Besides their background as nurses and former managers, the quality coordinators had supplemented their skills through various additional courses and educations. One quality coordinator held a master's degree in IT management and the other a master's degree in Public Governance. The insight into the more technical aspects of 'quality development', such as the detailed requirements of audits, and the patient and safety programme was gained through courses offered by, for instance, IKAS, introducing methods of audits and surveys. Finally, project management courses and courses in LEAN facilitation and other process-related courses could be seen in their CV's.

Concluding remarks

In this chapter, I have provided a description of the empirical case, i.e. the hospital, the departments and the quality coordinators studied in this thesis. Hereby, I have first and foremost provided an overview of the specific, local context, of which the empirical material is a part. Secondly, I have provided a description of the way quality work is embedded in a specific organizational context that is closely connected to the many political goals and elaborate national programmes of quality development, and not least how this organisation, including the quality coordinator position, is a result of an expansion of the requirements to quality development, as well as changed conditions for managing and coordinating hospital work in general.

As a continuation of the previous chapter, this chapter also points to the significant position of quality development, this time in the hospital. Here, quality development is

organised in independent units containing both actors and tasks, but is still deeply interrelated with the organisation of clinical work through a) the hopes and assumptions about the way that quality work will have e beneficial impact on clinical work and b) the way that quality work claims resources (time and staff) already in use in the clinical work. This raises questions about how this structure of simultaneous independence and interrelation condition the development of quality work in the hospital departments, and the way quality work is organized and managed. Questions I have also carried into the development of the analytical framework (Cchapter 6) and the literature review (Chapter 5), as a point of reference in the reading of existing research literature on quality development in health care.

Now that the empirical field of quality development in health care and the specific empirical case consisting of two hospital departments in a Danish hospital have been introduced, I will move on to a description and discussion in Part II of how I developed the analytical and methodological framework used to explore the development and organisation of quality work.

PART II

FRAMING THE STUDY AND GENERATING QUESTIONS

In the previous chapter, I framed quality development as a field of many ideologies, goals, methods and frameworks, which, despite its continuous developments and additions, has become a consolidated part of the health care system. This was the starting point of the present started: an overall interest in quality work as a broadly appealing, expanding and yet amorphous and elusive part of the health care sector, as well as a curiosity about the way quality work became organised as part of, or in relation to, clinical work and with what consequences. An intriguing starting point, but one that is not sufficiently specified.

In the following, I provide a further specification of how this particular study progressed into its form as presented in this thesis. The purpose here is not to provide a detailed account of my own personal journey from the day I initiated this study and till it was completed. Rather, I wish to emphasise some of the turns this study took, because I believe that it is here that I am able to show and explain some of the crucial choices made in order to narrow down, specify and develop the questions raised in the study. Hence, this chapter is neither a methodological nor a theoretical outline (see Chapters 6 and 7), but a chapter about how I framed the study through different encounters with the empirical field.

TOWARDS AN ETHNOGRAPHIC STRATEGY

As I have already described, this study was initiated through an empirical interest in the expansion of quality work and how it was about to settle as an independent field within the hospitals. Hence, I set out to study quality work as something that was both an

organisation in itself and a type of work that had to be *organised* and embedded in an existing hospital organisation and hospital work. My aim was exploratory, and I basically wanted to know what these organising activities were about. As Neyland (Neyland 2008: 32-35) notes, this is a completely valid starting point, but the need to define a focal point – a place, a group of people, a certain activity – for the ethnographic strategy is inevitable. However, I was undecided on how to construct and delineate an ethnographic field to study. Following Madden (Madden 2010), an ethnographic field is not the same as a geographical field, but an attempt *"(...) to marry the interrogative and investigative inclination of the ethnographer to the place that has been made by a group of people. (...) It is the synthesis between concrete space and investigative space that defines the ethnographic field and gives it its reason for being – it exists to describe, to interrogate, to question, to problematize, to theorise (...)"* (Ibid: 39). The question became, however, where this concrete space of quality work was, and where I would be able to study it. Where should I perform my study, and who or what should I study?

I ended up performing the fieldwork in two hospital departments in a Danish hospital mentioned above. The choice of both hospital and departments was pragmatic rather than strategic, as I went along with an existing contact I had from my employment in the Danish Institute of Health Services Research[14]. This hospital was about to develop a programme of organizational development based on a new concept, the concept of 'Inter Professional Learning' (IPL), aiming at improving quality in terms of increased patient satisfaction and more coherent care (Vyt 2008, Oandason, Reeves 2005). This programme included an educational course in which clinical managers or health professionals from the hospital departments would be educated as facilitators of increased and improved communication between the various groups of health

[14] Now KORA, Det Nationale Institut for Kommuners og Regioners Analyse og Forskning [Danish Institute for Local and Regional Government Research]). See the organizational set-up of the study in the introduction (Chapter 1).

professionals and patients involved in the individual illness trajectories [15]. More specifically, these facilitators were to become initiators of development processes aiming at IPL, and the hospital was interested in an evaluation of this programme. I was not interested in IPL as such, but I decided to meet with the hospital's quality manager and those consultants from the hospital's HR & quality department who were engaged in developing the concept and the education programme, in order to search for possible 'windows' that would allow me to study the quality work of interest. During this meeting, it occurred to me that these future facilitators of IPL were not the only group of staff in the hospital assigned to play a key role in quality development processes. In this hospital, the quality coordinators' position (see Chapter 3) was institutionalised, as every department had assigned someone to assist the department managers in the implementation of national quality frameworks and national, regional and local quality development initiatives. At that moment, this position revealed itself as a possible way to study quality work, whatever and wherever that was, and hence a solution to my self-imposed challenge of engaging with a field that could potentially include almost anything that looked like improvement, development and change. This position presented itself as an empirical demarcation, and at some point also as the unit of analysis (Yin 1989:31).

Asking (new) questions: holding on to the empirical tensions

Although I was approaching a firmer empirical framing, I still had to develop a research question that precisely defined my analysis of what would become a rather comprehensive body of empirical material. In this section, I will provide a description of the strategies used to revisit, explore and problematise some observed tensions in the

[15] I followed one of these IPL courses in the fall of 2012, because I initially had an idea of performing the study as an observation of both IPL facilitators and quality coordinators. However, as the study progressed I decided to abandon this idea, and hence the insights I gained through the observation of this course have not been used in the analysis of this thesis.

empirical material and how this informed the questions asked in this thesis and the positioning of the thesis analyses in relation to the existing research literature on quality development.

Paying attention to the mysteries

According to Ybema & Kamsteeg (2009), the interesting insights from an organizational ethnographic study can only be achieved through a deliberate effort to distance oneself from the empirical material and hereby foster a capacity for being surprised or discovering the unexpected, the mysterious, the strange or the irrational. The advantages of an ethnographic fieldwork are the intimate relationship between the researcher and the studied field, and hence the ability to approach an insight from within the field being studied (de Jong, Kamsteeg & Ybema 2013). This holds particularly true for the classic studies of anthropology, where researchers left their homes to study foreign cultures and approached the field as outsiders. Being an outsider heightened the researcher's sense of sensitivity and awareness of the nuances of what she was studying. Organizational ethnographers often perform studies in settings that are somehow familiar to them and close to them socially and culturally. Ybema & Kamsteed (2009) argue that the ability to 'open a field' by engaging with and being immersed in the field through ethnographic methods is counteracted by the ease of becoming blindfolded by normality. This is not an argument against organizational ethnography, but a reminder that the strange and the unforeseen is not a given, but something the organizational ethnographer has to pay particular attention to in order to develop an understanding of the studied field that goes beyond *"what [is] conventionally 'there' to be seen"* (Ibid: 8).

The fieldwork of this thesis consisted of days that were very much the same; the quality coordinators worked on their computers, they participated in meetings, they small-talked with someone who dropped by their offices or someone they met in the corridor and so

on. To be honest, they were sometimes tedious days that pretty much resembled my own working days (when I was not performing fieldwork), and many of the situations that I observed were very familiar. Additionally, I was well acquainted with the health care sector in general and the hospital organisations in particular from studies in my previous job. Furthermore, I was warmly welcomed by both the quality coordinators and their closest colleagues, and I soon began to feel at home. Hence, the odd feeling of being an intruder or trespasser, and the period in which everything is new (Neyland 2008: 100-101) did not last for long. In this process, the mysteries of what I studied became less obvious, and I had to deliberately detach myself from the material in order to reflect upon what I studied.

Ybema & Kamsteeg encourage organizational ethnographers to think from 'within', through an open and empathetic approach, and from 'without' by constantly problematising the observed, cultivating strangeness and preserving an intellectual distance to the empirical material (Ybema, Kamsteeg 2009, 8-9). Accordingly, they suggest several strategies and I was particularly inspired by one of these: the strategy of holding on to those mysteries that arise from the researchers own naïve wonders or the surprise of those who are researched (Ibid: 12-14)[16]. A strategy that I did not utilise deliberately (though sometimes unintentionally) throughout the field study, but a strategy I attempted to apply when I revisited my field notes and some of the very early analytical work and conference presentations, and some of the first attempts to describe my empirical material. In this empirical and early analytical material, a set of tensions or paradoxes kept disturbing my otherwise 'un-problematized' view on what I observed and became essential for the questions I ended up pursuing in the thesis.

[16] Additional strategies suggested by Ybema and Kamsteeg (2009) are 'Looking for the irrational', 'Making it look strange', 'Breaking the friendship bond', Distancing by immersion' and 'This fellow is wise enough to play the fool.'

Overall, these tensions were concerned with the elusiveness and negotiability of quality and quality as an object of work (Casper 1998), the emerging and dissolving connections among actors in quality development, and the quality coordinator's position as being closely related to decisions of change but without managerial authority. In the following, I will present these tensions by drawing on some of the empirical encounters and my reflections upon them.

What is quality?

First and foremost, I was struck by the diverse nature of what was referred to as quality work. During the observations, several definitions of 'quality' were emphasised and 'quality' was rarely the same, neither in its definition or execution. In one of the outpatient clinics, a doctor described quality as 'giving time', 'paying attention to the interaction with patients' or 'conferring with colleagues' when cases were difficult to understand. During a surgery, I observed another doctor mentioning quality as related to 'a treatment that fits the patient's conditions', when he explained to me the surgical procedure he was about to perform, and a surgical nurse emphasised 'protecting patients from infections' as being part of performing health care services of a high quality.

In some of the accounts of quality it was possible to track them back to national or even international definitions of quality and guidelines describing practices of high quality. In other accounts, 'quality' seemed to be defined in the situation by the actors I observed or linked to the specific professional backgrounds of the people I happened to be talking to – not least the quality coordinators. I had the impression that quality, and following from this also quality problems, could apparently be almost anything.

Although I usually understood why each notion of 'quality' presented to me was important, it also led to the question: how does something become defined as a quality problem, and – following from this – how does something become a subject of quality

development? This speculation especially arose from the fact that I was able to observe that only some versions of 'quality' became a subject of quality development – or at least not in relation to the processes that the quality coordinators participated in during the period of the fieldwork. One example is a situation where the quality coordinator from the surgical department told me that the doctors in the department could not agree upon *"the screws and bolts"* used during operations. According to a standard in DDKM, the departments were inclined to create guidelines that described the specific details of the treatment of their largest patient groups. In the surgical department, however, this procedure was challenged by disagreement among the doctors, who preferred different materials and even found this divergence quite unproblematic. Fortunately, this had not been discovered when the hospital was surveyed for accreditation, but as the quality coordinator said: *"someday I will have to lock them in the same room, and I will not let them out till they have come to an agreement"*. The questions began to line up: Why someday instead of now? How would she lure them into this 'room of negotiation'? What would be the outcome of this negotiation, and what if they were unable to reach an agreement or insisted on remaining indecisive regarding *the* best way to perform a surgery? Would it remain a quality problem?

I confronted the quality coordinators with this puzzle, especially in the beginning of the fieldwork, but also later on. In one such confrontation, one quality coordinator said that she always thought of her remit as being related to the quality definition formulated by WHO (which I still found rather comprehensive), and could not quite follow my observation that quality could being almost anything. The other quality coordinator (given the pseudonym Lene) was more open to my observation as to the ambiguous nature of quality, but as the citation below shows she saw this as a premise, and part of her job, rather than a problem in itself:

I: I'm a little puzzled about quality work … Quality can be so many different things, can't it? The tasks of quality development are rather elusive, aren't they?

Lene: Yes, it can be all kinds of things, but it has become easier after the implementation of DDKM. Here it is clearly defined what it is that they [the external surveyors in relation to accreditation] are looking for. This could be nutrition, for instance: is there a guideline? How is it organised? What tools are they using? Are they using them correctly? (…) DDKM is very much about structure. (…) They [the external surveyors] are only not all that interested in outcome, but mainly about structure. That is, after all, the foundation for the quality work, and it has been a great support in my work. It [DDKM] has changed the quality work in a positive way.

I: But doesn't it lead to a lot of discussion of what quality is?

Lene: Yes, but that is probably how it should be. We had this case [at another department in the hospital] where patients were given too large doses of medication. Naturally, this caused a lot of questions about why this was not discovered during the visits from DDKM. It is a question of how far you are should go into the patient-related processes. Many clinicians think that structure is unnecessary: 'Why are we so interested in structure? We are doing the best we can'. It is just so much easier to monitor, when we have a framework and a structure for the quality work.

(Interview, Quality coordinator)

The interview was performed early in the field study and confirmed my suspicion of the existence of many co-existing understandings of what were important subjects in quality development, and how quality could or should be developed. One could argue that this should come as no surprise. Nevertheless, I was curious to explore how actors became connected in relation to quality development projects, even when they disagreed on its relevance or importance. However, the urge to find a clear definition of 'quality', 'quality problems', and hence 'objects of quality work' was more of a concern for me as a researcher rather than a concern expressed by the quality coordinators.

Ybema & Kamsteeg uses the rather telling metaphor of behaving like Mr. Bean rather than John Wayne, when trying to induce the mysteries of the studied field (Ybema, Kamsteeg 2009, de Jong, Kamsteeg & Ybema 2013). Instead of enduring the fieldwork as a hero, researchers should dare to act more like a fool. This was exactly how I felt in my very persistent attempts to make the quality coordinators give me 'a once and for all' definition of quality, or at least how some things became an object of quality development whereas other things did not. Obviously, I was not able to come closer to an understanding of what characterised quality work just by asking. So I stopped asking, but kept wondering. I began to understand, though, that quality development could not be understood as something that was tightly coupled to a definition of quality. Rather, it was something that emerged in an interaction between various actors and organizational units in the hospital and between various perspectives on quality and quality development that fostered tensions, rejections and negotiations among the implicated participants.

As such, quality work seemed to be dependent on what the health professionals, managers and quality coordinators thought was important and what they thought was the best way to approach quality development, and *this* was up for discussion. Hence, quality was neither given as a defined concept, as a practice nor as a result. Rather, there were different versions of quality at play, and these versions were results of a variety of actors' negotiations and practices. Finally, quality was a joint effort of many actors who were not only engaged in performing one type of quality but several, and a joint effort of actors who did not necessarily share the same ideas of what quality was and how it was to be practiced or developed. Still, quality work happened to develop through negotiations of various kinds and durations. These negotiations were not the result of completely uncontrolled processes, but rather framed by, for instance, quality coordinators, department managers and the more or less mandatory frameworks or methods of quality

development. Hence, additional questions began to emerge in relation to the way negotiations were initiated, framed, pushed forward and so on.

Existing, emerging and temporary connections

Another theme that emerged in the empirical material concerns my observations of *connections* as a recurrent quest in the work I studied. During the analysis of the empirical material, I became aware of the many cross-organizational and cross–professional interrelations embedded under the heading of quality development. It was characteristic that these interrelations were organised as short-term processes aiming at changing a delimited section of clinical work. For each of these projects, working configurations, such as 'working groups', 'steering committees' and 'project groups' had to be set up. Their destiny was, however, to dissolve shortly after their emergence, because they were following the quick turnover of the quality projects. Hence, there was a constant need to establish new assemblages.

In opposition to these new and shifting configurations of actors in quality work, the same actors were part of more permanent assemblages related to clinical work; for instance as in the operation theatre where patients were brought in by the porters, anesthetised by the anaesthesiologist, operated on by a doctor in corporation with a scrub nurse and a circulating nurse, sources of contamination were registered, x-rays were made etc. These assemblages were related to the treatment and care of patients as a (fairly) stabilised object of work (Casper 1998). As I elaborated on above, quality was practiced and defined in many ways, and accordingly actors of different views and practices were often inclined to engage in some sort of connection related to quality work of a shorter or longer duration. The identification of connections as an important theme in the development of quality work was therefore also closely related to the elusiveness of quality, and accordingly the necessity of aligning these actors around

common quality problems to pursue. However, the connections that made up quality work were not only developed through the definition of quality or quality problems, but also through designations of actors for whom this would be a problem or who were considered to be a part of its solution. Involvement of actors depicted as significant in a particular project was not a given, however, and in addition to the questions about how negotiations among actors engaged in quality development were framed, I also became interested in the efforts made to convince actors of the relevance of their involvement and support.

The undefined roles of quality coordinators

The third question I kept following was related to the quality coordinators' position in the hospital organisation. This question was partly an extension of the above; the elusiveness of quality was also reflected in the quality coordinators' position and ability to act. I was not alone in pondering this question. A quality consultant who assisted the quality coordinator in the surgical department during the time of my fieldwork expressed confusion regarding her job in the following way: *"It is a mixed bag. When people ask me what I am doing, I simply do not know what to answer"*. In addition to this undefined content of the quality coordinators' job, the quality coordinators were also placed in an organizational position in which they were neither part of the clinical or managerial staff. One of the quality coordinators described the challenges of this position in the following way:

> It can be a challenge [not to have a managerial position], because I have no power. I am not able to cut their wages or fire them, if I think they are incompetent – well, not that I think they are – I can only try to lead the way and motivate. Of course this requires some respect, and that is not something I got from day one. It isn't that I have experienced

> anything unpleasant, but I have had the feeling that I needed to build up some respect, especially from the group of doctors.
>
> (Interview of a quality coordinator, medical department)

Nonetheless, the quality coordinators described their job as being about 'organisation', 'prioritisation', 'management of processes' and 'change management', and accordingly held that they possessed a position with a clear intention of change. Additionally, this description and feeling of being challenged was also in opposition to some of the observations I made during the fieldwork. Here, I was given with the impression that the quality coordinators were quite capable of engaging health professionals, managers and others in processes of quality development.

This capability seemed at least to some extent to be related to the quality coordinators detached relation to both the clinical wards and the managers, but also to their privileged access to various types of knowledge about quality. As I wrote in the introduction; transparency has become a keyword, and this is reflected in various national initiatives combining formulated quality standards with methods of quality assessment. The quality projects that I observed were closely connected to these national and mandatory quality programmes that offered a chronological and methodological framework for measuring and improving quality, and also a legitimate reason for interaction with the department's staff and the involvement in improving their daily work.

However, the quality coordinators' ability to perform went beyond these frameworks for quality monitoring. It may be trivial to mention that these quality standards highlight certain aspects of quality work, whereas others are left in the dark, and that the methods of assessing and improving quality may lead clinical work in a certain direction. What may be less trivial is that the quality coordinators paid attention to and reacted upon work that went beyond the standards, and in order to implement the standardised

methodology they were themselves conducting an additional amount of work that was not described in the official manuals. Searching for the presence of health professionals in the booking systems, preparing material and presentations for a workshop process and having the head nurse make a workshop invitation are examples work performed by the quality coordinators that is not otherwise described as part of the methodology for quality development. Additionally, the quality coordinators were not only paying attention to the work captured in the various quality assessments. On the contrary, they were deliberately seeking and using alternative insights into the various work practices in the department, in order to understand the entire sequence of work. In that respect, they were operating on the edge of what was standardised and made visible on the one hand, and the situated, complex and invisible work (Star, Strauss 1999) on the other.

I have now described some of the 'mysteries' that caught my interest during and after the fieldwork. In the following section, I will describe how this made me reconsider the original emphasis on the quality coordinators as the primary unit of analysis.

A shift in attention: From 'quality coordinator work' to emerging connections

The meeting with the quality manager and the consultant in the hospital department of HR & Quality mentioned earlier and the subsequent decision to go along with the idea of studying quality coordinators' work took place before I even started to formulate the initial PhD application. As I implied above, this choice also ended up influencing the inquiries I made at that point in time. Hence, this study was initiated as an inquiry into the actors performing quality work, and I formulated a research application and research question that focused on the emergence of this new group of actors in hospital settings, working in the intersection between clinical work and national regulation. As such, this preoccupation with a particular group of actors in the hospital and the expectations of their potential achievements that I met in my first encounters with the empirical field

was crucial for how I initially framed the study. This was reflected in the way I designed the collection of empirical data, I decided to pay particular attention to the work of quality coordinators, and the preoccupation with the quality coordinator function was also highly explicit in the earliest analysis (Madsen 2014, Madsen Forthcoming). However, as my analysis developed I became more and more aware of the limitations of this perspective, because it favoured the quality coordinators in a way that did not resemble what I observed empirically. One point of criticism that I was often faced with was that my analyses gave the quality coordinators a status as more strategic than other actors and as unaffected by the actions and the other actors to whom they and their work was related. Central to this challenge was my emphasis on one particular actor (the quality coordinators), which was reflected in both the imposed strategy for my fieldwork and the research questions that I formulated. Other actors were too easily allocated marginal positions, where they appeared as 'context' or 'tools', and hence a premise rather than someone or something that interacted actively with the quality coordinators.

At some point, this problem made me rethink my preoccupation with the quality coordinators as representatives of quality work. What I saw and what I found interesting in the empirical material was that quality work was apparently constructed through emerging and existing group formations. These group formations had caught my attention from the very beginning of the fieldwork, but I had primarily considered them as a result of the quality coordinators work. At a certain point, my attention shifted, and I started to pay attention to these group formations as ongoing processes in which actors where connected and disconnected, and where certain aims and actions became more or less important. The quality coordinators were still the only actors present in *every* encounter that I came to study, and it was inevitable that they would play a pivotal role in the empirical material as well as in the analysis, even with this reframing, but the attention shifted from their individual achievements towards their performances in

unison with actors in and beyond the local departments. Thus, this shift in attention was not made to prevent myself from discussing the actual work of quality coordinators, and it was not made to have to perform a completely new fieldwork. It was a shift in the analytical unit from 'quality coordinator work' to the shifting connections among actors engaged in quality development processes in the departments and how the specific details of quality work were constituted through these connections.

Concluding remarks

In this chapter, I have described how the present study came into being and how my engagement with the empirical field led to the emergence of new questions. In the above, I have narrowed these questions down to a list of three, and the tensions inherent in these issues are in different ways related to the fuzziness, elusiveness and instability of quality work on the one hand and the observation of emerging assemblages and interrelations on the other. These questions did not merely develop through empirical encounters, but also as an iterative process in which different analytical concepts were tested and discarded or used along the way. In these iterations, the empirical observations of a dynamic fluctuation between emerging and fading coherences in quality development processes became even more intriguing, because it became possible to contrast and supplement the existing theoretical and analytical perspectives used in existing research on quality development and perhaps contribute with new insights. Below, I will explain how I developed the analytical framework in dialogue with existing literature and the empirical encounters mentioned above.

LITERATURE REVIEW

In the previous chapters, I have described the context of quality development in Danish health care as a superordinate of technologies and initiatives that attempt to reorganise clinical work for the better. I have demonstrated how quality development in health care encompasses many types of ideas, technologies and practices, and also how it has succeeded as an overall project in becoming a strong and independent component of Danish health care. Additionally, I have explained how this intrigued my curiosity, and how I began asking questions regarding this as an empirical phenomenon.

In this chapter, I will turn to the literature on quality development in health care, in order to place this study in the broader academic context. At the end of this chapter, I will provide a discussion of how these studies relate to the questions raised in the previous chapters and clarify the contribution of this thesis.

QUALITY DEVELOPMENT – A STUDY OF MEDICAL PRACTICES

The immense interest in ways to improve quality has not only attracted the interest of policymakers, managers and professionals in health care, but also researchers from various scientific and theoretical fields who take an interest in the ways in which quality development affects the service delivery of health care institutions. According to Zuiderent-Jerak & Berg (2010), this interest is an extension of an interest in medical sociology:

> The quality and safety improvement movement that is emerging in response to the problems in the delivery of health care is highly involved in a practice that medical sociology has for many decades been exploring: analysing and problematizing medical practice in substantial and increasingly influential ways (Zuiderent-Jerak, Berg 2010: 325).

Furthermore, they argue that the involvement from the quality and safety movement in medical practice has raised special interest among medical sociologists because of the quality and safety movement's close relationship with influential national institutions with strong agendas for change. This has, according to Zuiderent-Jerak & Berg, made medical sociologists specify this interest in medical practices and inquire into the effects of the many subfields of quality development (Ibid). Accordingly, analyses of the underlying ideas of quality development and how they manifest themselves in concrete practices have been performed, as part of a critical discussion of the ambivalences and ambiguities emerging from the many attempts to improve or control quality. In general, these studies point to resistance, tensions and unforeseen effects in the meeting between these methods and technologies of quality development *and* the health care organisations and concrete medical practices. In this way, the studies pinpoint particular drawbacks of the technologies and methods used and illuminate the efforts required from both staff and managers in relation to their implementation. As I will return to later, this study contributes to the latter in particular by taking departure in the efforts related to the constructions of emerging and temporary connections of actors around particular quality development processes.

In the following, I will present the overall findings of the research literature through three broad categories of research.

Inquiries into the underlying assumptions and basic components

The first group of research approaches quality development from an interest in the underlying assumptions about how quality is improved. One such example is Knudsen's analysis of how the Danish accreditation programme (DDKM) was developed and how this contrasts with the inherent assumption and related rhetoric, stating that accreditation is a method of all-encompassing evaluation. Rather, he holds, the

predefined quality standards on which accreditation relies, must be considered as a selected and limited insight and based on the attentiveness of the programme developers. Hence, the exact activities that are subject to evaluation are based on these generalised formulations of indicators, which must be considered as limited in scope (Knudsen 2011a, Knudsen 2011b).

In a similar way, the underlying assumptions of the patient safety movement have been questioned in relation to the implicit suppositions of the concrete methods of patient safety. These suppositions, it is argued, neglect already existing structures for safety work, and assume that there is a dominant discourse of blame among health care workers and that it is possible to erase uncertainties and errors (Zinck Pedersen 2013, Mesman 2008, Waring 2007b, Waring 2005, Jerak-Zuiderent 2012). For instance, the existence of 'a culture of blame' that is believed to make health professionals reluctant to share their mistakes and learn from them is a principal assumption inscribed into many patient safety models. This assumption is, however, questioned by Zinck Pedersen (2013), who suggests that errors are rather handled in informal structures of collegial regulation, which indicates that there is no 'culture of blame' to be replaced by a 'culture of safety'. A similar argument is brought forward by Waring (Waring 2007b), who challenges the assumption that doctors are biased towards 'person-centred' explanations of errors rather than explanations referring to 'the system'. Additionally, in another paper he points to a rather different set of barriers to doctors' incident reporting than those put forward by the patient safety movement. A set of barriers that is rooted in 'a culture of medicine', where medical errors are regarded as inevitable and unmanageable, and where incident reporting is also resisted, because it potentially opens up for the possibility of interference and control from managers and others outside the medical profession (Waring 2005).

Also, within the specific subfield of patient safety researchers have paid particular attention to the way 'safety' as a practice is already achieved in the health care. Such studies have pointed to different types of errors in the performance of health care and to how some of these are already addressed by resilient practices of care. In this way, these studies invite to a discussion about how and whether attempts to standardise practices in the name of 'patient safety' support the elimination of errors or produce new forms of risk (Mesman 2008, Jerak-Zuiderent 2012).

Health professions in transition

A second category of research pays particular attention to what may be referred to as 'health professions in transition'; old figures change and new figures emerge in the attempt to respond to changing public demands and increasing interest in regulation of health care. As Allen & Pilnick phrase it, *"(h)ealth care has emerged as a popular case for the study of the world of work and occupations"* (Allen, Pilnick 2005: 683) for decades. This especially holds true in light of the continuous efforts to regulate the health care system through ideologies of efficiency, transparency and patient involvement that have challenged and changed existing work practices, divisions of labour and professional autonomy (Ibid).

A major concern in this category of research is the impact of regulatory reforms on professional autonomy. The increase in such reforms and the associated requirements of making professional work available for control and scrutiny are said to challenge the professional autonomy (Kuhlman 2006a, Light 2010, Light 2000). Accordingly, the medical professions' strategies to either adapt, subvert or avoid the managerial control mechanisms have been a subject of study, in which colonisation or decoupling has been stated to be an end in a continuum of possible reactions to these demands (Power 1997, Numerato, Salvatore,D., Fattore,G. 2012). Others, however, have provided insights into

other kinds of reactions, where the professionals adapts technologies and methods in order to take control of them, and hence also take control of the degree of transparency of their work (Waring 2007a, Levay, Waks 2009).

Another theme in this category of research is the discussion of changed professional identities and jurisdictions (Kuhlman 2006b). Kirkpatrick et al. (2011) stress that management has become a contested terrain as a result of new opportunities for engaging in health care management:

> "(…) this system [referring to Abott (1988)] is in constant flux, with external changes in regulation and technology generating opportunities for established and aspiring professionals to colonize new areas of work" (Ibid, 490).

In other words, the work and power relations of existing professions and occupational groups tend to be displaced. Scarce resources and patient concerns are other examples of factors that lead to changing frameworks of management, and distinctive administrative elites are emerging in the clinical professions (Kirkpatrick,I.,Kragh Jespersen,P., Dent,M.,Neogy,I. 2009). The notions of hybrid professions (Kragh Jespersen 2005, Kurunmäki 2004, Numerato, Salvatore,D., Fattore,G. 2012) and hybrid managers (Kragh Jespersen 2005) have emerged as a way of understanding the necessity of merging and balancing dimensions of professional work and more general dimensions of management. This emergence of new categories in the professions can be understood as a strategy of maintaining control through direct involvement in management or regulation technologies (Waring 2007a, Waring, Currie 2009). Additionally, research has revealed how less powerful professions are able to reposition themselves through strategic involvement in the construction of the regulatory frameworks in a manner that promotes their own interests (Levay, Waks 2009, Martin, Waring 2012, Evetts 2011). In this way, management has become a contested terrain, in which doctors are concerned with maintaining their autonomy, and nurses increasingly engage in management and

strengthening their position in the hierarchy (Kirkpatrick, Dent & Kragh Jespersen 2011).

Quality development technologies in practice

Previously, I have described how there is a debate in the health care sector about what constitutes 'evidence based quality development'. There is a general interest in the effects of different approaches to quality development and the preconditions for these effects (for instance staff motivation and methods of implementation). Consequently, journals such as *BMJ Quality and Safety* and *International Journal of Quality in Health Care,* as well as the *Cochrane Institute,* are rich sources of this kind of study, which approaches questions of effect in a variety of medical specialties and health care sectors. Studies such as these can be defined as subscribing to a functional (Wadmann et al. 2013) or rational (Albæk 2003) perspective, where quality development methods and initiatives are evaluated in relation to their original design and purpose as tools of quality development, assessment and control. As such, studies have paid particular attention to the exploration of the effects of, for instance, accreditation/external assessment (Braithwaite et al. 2010, Falstie-Jensen et al. 2015, Øvretveit, Gustafson 2002, Flodgren et al. 2011) and the effects of methods for implementing clinical guidelines (Øvretveit, Gustafson 2002, Grimshaw,J.M.,Thomas,R.E.,Mclennan,G., Fraser & Ramsay,C.R.,Vale,L. 2004)}.

This approach, however, has been critiqued by social scientists, who argue that it pays undue attention to the complexities of making the many methods and technologies of quality development work as intended (Zuiderent-Jerak, Berg 2010, Vikkelsø, Vinge 2004). Most of research in this category of literature takes as its point of departs the tradition of Science and Technology Studies, according to which a well-functioning technology is considered an achievement based on a particular local practice (Latour

2005). Referring to the field of quality development, it is argued that it is impossible to understand the success or failures of these attempts to improve quality, without paying attention to the complexities of the various practices related to their execution and the investments made in order to make them work. Additionally, without these tracings, the assessment of whether and to whom the quality development initiatives have become a success is impossible to make (Zuiderent-Jerak, Berg 2010, Timmermans, Berg 2003, Vikkelsø, Vinge 2004). This technology-in-practice approach (Timmermans & Berg 2003) considers technologies as actors with the ability to change workplaces, but this is neither because of the attributes of the technologies nor the attributes of its users. Transformation and change happen in the interrelationship between technologies and users, and hence the technologies' accomplishments can only be studied empirically:

> Research in this field [technology-in-practice] has demonstrated that tools do not slip into some predefined space in an existing workplace; getting a tool to work requires negotiations with all the actors involved and sensitivity to the local work organisation. It is through a process of convergence by the use of such technologies in practice that tools and workplaces transform each other (Allen 2009: 356).

Accordingly, it is difficult to single out and isolate the functions of technologies, as they are embedded in heterogeneous networks consisting of other tools, practices, groups, professionals and patients (Timmermans, Berg 2003). This approach has inspired many empirically sensitive studies of medical technologies initiated with the aim of improving practices of care. Such studies have paid particularly attention to the specific processes related to, for instance, the implementation of quality indicators (Jerak-Zuiderent, Bal 2010), accreditation systems (Wiener 2000, Hatting 2007), electronic patient records (Vikkelsø 2005), care pathways (Allen 2009, Pinder et al. 2005, Allen 2013) and quality improvement collaboratives (Zuiderent-Jerak et al. 2009). Among those are studies that pay particular attention to the transformations of specific quality development tools from general and vaguely defined technologies to specific local versions of the

technology when they enter the health care organisations (Allen 2009, van Loon, Zuiderent-Jerak 2012, Pinder et al. 2005, Allen 2013). This has led to reflections about how these transformations concretely or potentially supports certain attentions in health care, eliminate tensions related to their implementation or produce new tensions.

It is also characteristic of this group of studies that are concerned with the effects and affordances of quality development technologies that they compare their findings with the high hopes inscribed into the technologies, and, generally speaking, there is an urge to put an end to the overreliance on the technologies' abilities. Thus, these studies not only engage in an academic debate, but also in a debate with managerial ideals and assumptions, and put emphasis on the neglect of the complexities related to their implementation (Zuiderent-Jerak, Berg 2010, Allen 2009, Pinder et al. 2005).

However, these studies have not only illustrated how medical technologies are made to work through the intensive efforts of other actors in the organisation in which they are embedded, but also illustrated how unintended effects occur. Every new technology will inevitably produce effects that go beyond the inscribed intentions of the technology, and this should serve as a reason to investigate what happens when these new technologies are introduced. This is formulated by Wiener (2000), for instance, in her analysis of what she terms 'the hospital accountability movement':

> "(…) there is much to be learned from close scrutiny of the unintended consequences experienced within the hospital accountability movement. Ideally, by examining what has been effective and where action has been misguided, we will be in a better position to place a more realistic definition on 'accountability'" (Wiener 2000: xiii).

Vikkelsø (2005) makes a similar point in her analysis of the implementation of an electronic patient record. Here she illuminates a paradoxical relationship between the studied technology and organizational change, in which both risks, points of attention, capabilities and competencies are redistributed.

> (…) the emergence of effects is to be understood as a process, in which other effects concomitantly disintegrate: when new capabilities arise, so do new risks; when new competencies are produced, so are new in-competencies; and when a new order is established, so is also a new disorder (Vikkelsø 2005, 24).

Accordingly, it is not reasonable merely to state that the electronic patient record is 'smarter', 'improves coordination' or other persuasive statements about the outcomes of this technology. On the contrary, Vikkelsø claims, as there is always a price to pay, in the form of unintended effects, when attempting to make improvements. These unintended effects, as well as the intended effects, should be illuminated and used as insights in the design, evaluation and implementation of new versions of the electronic patient record. Timmermans & Berg (Timmermans, Berg 2003) have introduced the concept of *politics of standardization in practice*. With this concept, they invite to studies that recognises that standards in health care provide order and as they note: "*(…) standardization is, paradoxically, a dynamic process of change*" (Ibid: 23). The basic assumption is that standards are not neutral entities, but actors who participate in the transformation of practices and hierarchies, in which they become embedded. This is why they insist on calling standards political tools because "*(…) they generate action and create new forms of life*" (Ibid: 21-23). Instead of engaging in a debate of pros and cons, in their case standards, they agitate for studies that seek answers to questions such as: what is being ordered, who does the ordering etc.?

FROM CHANGED TO EMERGING CONNECTIONS

With this literature review, I have sketched the contours of a field of research that critically reflect upon the effects and affordances of various methods and technologies introduced to improve or control practices of care. These studies on quality development and regulation in health care are rooted in many different theoretical traditions and empirical contexts, but they share an interest in the exploration of *change*. Consequently,

these studies have illuminated how quality development initiatives are causing changes in the autonomy of heath care professions and in the boundaries between professionals and managers, changes in the practices of clinical work (e.g. the emergence of new kinds of risks) and changed frameworks for decision-making. In these studies, it is also recognised that these changes do not occur without considerable efforts from managers and staff in the local health care settings, and also that concrete quality development technologies may result in both intended and unintended effects. Finally, these studies have identified the necessity of paying attention to the concrete orderings and dis-orderings, due to quality development initiatives and the complexities related to their implementation. Such complexities can serve as explanations for why quality development initiatives fail to have any impact on the local clinical context in which are implemented, and indicate the precise efforts performed in order to make them work.

Drawing on this literature, the present study is particularly interested in the efforts induced to bring the various initiatives of quality development to life and make them work. The studies referred to in the above explore the meeting between the health care organisations and initiatives of quality development in a particular way. This meeting, I argue, is explored as the meeting between an *existing ordering* of hierarchies among health professionals, professional independencies and specific clinical practices *and* quality development initiatives that potentially or concretely stimulate changes or adjustments to the existing ordering. The main interest in these studies is to account for these changes and how they are dealt with.

In the previous chapter, I elaborated on the first encounters with the empirical material of this study, and how I became interested in the way quality development processes unfolded through emerging and temporary connections between actors in the departments. Thus, I wish to explore the meeting between the health care organisation and initiatives of quality development as a point of *emergence,* or more specifically as a

point where actors in the hospitals become connected in new ways around particular quality development initiatives, and the point where the specific details of the quality work in terms of goals, tasks and assigned actors are constructed. Accordingly, the interest in this study is not to understand the changes of clinical work in the meeting with DDKM, the patient safety system, clinical care pathways etc. In contrast, I bracket the functionality of the specific technologies, frameworks and methods and their impacts on everyday clinical practices. Instead, the main interest in this thesis is to follow quality development processes as emerging sets of connections between actors in the hospital departments that affect the way in which quality problems are defined, addressed and – importantly – by whom. Hence, I do not follow a method or a technology when it enters a health care organisation. Rather, I study the construction of local quality development processes as networks of humans, technologies, ideologies etc. Accordingly, this point of attention allows for a lesser degree of criticism of the individual technologies and methods than the studies referred to in the previous chapter. Instead, I wish to contribute to an understanding of how connections and reconnections of actors around quality development processes occur and in this way improve our understanding of how quality work develops in concrete, local health care settings.

Concluding remarks

In this chapter, I have provided an overview over the research literature on quality development and control divided into four broad categories. The many initiatives of quality development are characterised by a strong agenda for change and distinct ideas about how change is brought about. These traits almost beg for critical inquiries, and thus one prevailing theme among the many studies on quality development in health care is a critical exploration of the implications of these initiatives when implemented in clinical practices. Based on this, I argue that the current research in health care has paid

particular attention to quality development as a changing force of existing orderings of work and hierarchies in health care.

Another prevailing theme in the literature is that the specific functionality of quality development initiatives relies on managers' and staff's efforts to accommodate the complexities related to their implementations and ability to work in a concrete, local setting. Inspired by this and the empirical discovery of emerging and temporary connections as a characteristic feature in this study's empirical material, I suggest a study where the various processes of quality development in the local departments are points of emergence. Later in the thesis (Chapters 8-10), I will argue that it is through these emerging connections that the particular details of the local quality development processes develop. Next, I will turn to the analytical framework and the main theoretical concepts used in the analyses.

ANALYTICAL FRAMEWORK

In the previous chapters, I first described the questions that arose from the interactions with the empirical field. Secondly, I outlined my reading of the literature on quality development, with special emphasis on those studies that explored what happens when quality development initiatives are introduced in health care organisations. Here, I also sketched the contours of an alternative approach to the study of quality development in health care that places emphasis on the emerging and temporary connections related to local quality development projects. Furthermore, I depicted this as a possible way of providing new insights into the specific ways to handle the complexities that arise in the meeting between local health care organisation and the specific demands of quality development.

In this chapter, I will describe the analytical framework developed for this thesis. I begin by framing quality work as a distinct type of work in the hospital inspired by the conceptualisations of Strauss and colleagues (Strauss 1985, Strauss et al. 1997). Then I explain how, with inspiration from Actor Network-Theory, I use the concept of translation to study this work as emerging networks. Finally, I return to the conceptualisation provided by Strauss and colleagues, more specifically the concept of articulation work, which I incorporate in the analytical framework in order to pay specific attention to the quality coordinators' work.

ARCS OF WORK AND TYPES OF WORK

In the study of medical work in relation to the care for patients with chronic diseases, Strauss and colleagues develop a vocabulary of different types of work (Strauss et al. 1997). Here, they refer to an 'arc of work' as, in their case, an illness trajectory consisting of organised work performed during the course of an illness (related to an individual

patient). More generally speaking, it refers to any project of organised actions towards a given product such as: " *(…) inventing a new model of computer, building a house, getting a voluntary organisation off the ground etc.*" (Strauss 1985, 4). An arc is constituted by a variety of tasks performed in a sequence or in different phases of a project:

> "An arc for any given project consists of the totality of tasks arrayed both sequentially and simultaneously along the course of a trajectory or a project." (Strauss 1985, 4)

These tasks can be bundled into types of work, and in the study of illness trajectories Strauss and colleagues identified five types of work (Figure 4). These types of work refer to the illness trajectory studied by Strauss and colleagues and hence to a specific project within a hospital. The types and their combinations will vary by different arcs, as well as by the sequential ordering of the tasks or bundles of tasks. Strauss et al. refer to *a trajectory sequence point* as any point at which it is decided to do certain tasks, and hence they suggest that tasks are allocated in time. Furthermore, they suggest that tasks have an *organizational base* such as: "(…) *proper skills, a sufficient workforce, appropriate equipment, necessary drugs, enough time and so on*" (Strauss et al. 1997, 30-31), which allows them to be carried out. Specifically, Strauss and colleagues emphasise that for every task there is an actor (or several) assigned to that task. In other words: the distinction between different tasks is followed by the assignment of these tasks to different actors.

> These different projects or trajectories with their implicated arcs of work entail different divisions of workers (persons or classes of persons or units of organisations) in order to get the constituent tasks done. (Strauss 1985, 4)

As revealed in this citation, an actor can be a person, a department or an organisation etc., and hence actors can also vary in their attributes, for instance experience, skill or knowledge. Actors may share tasks or perform them individually and, as was the case with the tasks included in the arc of work, it is an empirical question how the division of labour should be.

Figure 4: Types of work identified by Strauss and colleagues in relation to an illness trajectory (Strauss et al. 1997)

Machine work: Work related to the monitoring of the equipment for instance by safety engineers from a service department done in order to avoid hazardous situations where machines are a danger to patients or personnel or are providing false information about the patients' condition. Service and provision of supplies are also included in this category of work and may be performed by both service departments, but also from personnel within the departments. Finally, there is the machine work related directly to a patient or a patient's body; connection of machines with the patient's body, the use of diagnostic equipment in the laboratories, but also to the transportation to and from examinations.

Safety work: Work related to the managing and shaping of courses of illness so they are the least hazardous and protect the patients from the contingencies of their disease. The content of this work includes anticipation of the potential hazards of a given condition and the implied potential risk of the medical intervention (risk of infection, adverse effects of medication etc.) as well as the hazards related to the use of equipment (and hence related to the above mentioned machine work), and organisation of the available resources accordingly.

Comfort work: Work related to the management and relief of discomfort caused by the illness itself, the medical interventions or the hospital environment. Several kinds of tasks can be mentioned here like preparing a patient for the discomfort, minimising or relieving of discomfort, or assessing and reporting discomfort.

Sentimental work: Work related to the patients' psychological discomfort of being ill, going through various treatment and diagnostic procedures. This encompasses empathic gestures in direct relation to a current discomfort but can also be work related to the preparation of patients to life with the illness after hospitalisation.

Articulation work: Work related to the management and coordination of the individual types of work in order to make them cohere and merge into a totality. This type of work, I will return to in the following.

I have already described how this thesis grew out of an interest in the quality movement and particularly in how it became a formal part of health care, introducing distinct quality organisations, distinct demands to the way quality development is performed,

distinct technologies and designated actors to support and manage this work. If arcs of work consist of tasks, clusters of tasks and various actors to perform those tasks, I argue that quality development can be considered as an arc of work that, despite the obvious interrelatedness, is different from the clinical work related to the care of patients. Or more specifically, quality development consists of several arcs of work, related to different quality development processes that each constitutes what Strauss and colleagues refer to as a trajectory sequence point. However, where Strauss and colleagues describe these arcs of work as relatively stable entities, I wish to approach the *arcs of quality work* (in the forthcoming just *quality work*) as emerging, and for that purpose I now turn to some of the analytical principles developed in Actor Network-Theory (ANT).

A RELATIONAL UNDERSTANDING OF ACTORS AND ORDERS

ANT was originally developed with a minimum of theoretical concepts and introduced as a set of analytical principles that could be used to explore the construction of science, technology, society etc. (Latour 2005, Latour 1999a). One of these key principles is that any scientific fact, any societal norm or structure or any actor[17] should not be considered as acting according to some inherent or basic properties or essential truth, but as effects of an actor-network. Latour (2005) also refers to ANT as a sociology of associations and hereby emphasises that every stabilised entity or structure is the result of negotiations and compromises that align actors in a stable network. When the entity is stabilised or

[17] In this thesis, I consistently use the term actors rather than actants, as otherwise suggested by Latour (Latour 2005: 54-55). Because the concept 'actor' may suggest the intentional actions of humans, the term actant was suggested to reflect the belief that people and things should be studied on similar terms. The argument, and a second analytical principle of ANT, is that agency – regardless of whether it is the agency of humans or non-humans (organisation, ideologies, technologies, animals, microbes etc.) – should be considered as an achievement given by its relations to other actants. In this thesis, I relate to this understanding of agency and symmetrical explanations of human and non-human agency (Latour 1987). Nevertheless, I insist on using the term *actor* instead of *actant*, but solely due to a linguistic preference, and not to a preference for human agency or asymmetrical explanations of human and non-human agency.

black-boxed (Latour 1987), no one questions these underlying efforts. However, in order to understand how and why something becomes stable enough to be considered an unquestionable truth, whether it is a scientific fact or a social structure, the researcher must trace these associations that precede its emergence (Latour 2005).

Translation

Accordingly, ANT agitates for empirical studies of the way the stability of a scientific truth, an organizational or societal order, emerges in processes of translation, in which negotiations and controversies have been dealt with and actors have been aligned in an actor-network. Hence, translation refers to actors' abilities to influence other actors according to their own strategies or interests (Latour 1999b, Latour 1987, Latour 1991). Latour (Latour 1991) explains this as the meeting between a programme and an anti-programme: one actor engages in a relation with other actors with a particular ambition, as well as with expectations to their actions and specific capabilities. In the beginning, this programme may be fragile and contested by other actors, who also engage in the relation with a programme – or, from the perspective of the first actor, an anti-programme. The programme is always in the hands of the other actors, who can react with '*resistance, carelessness or savagery*' (Latour 1991: 105). Hence, the first actor must respond to these anti-programmes and try to convince the other actors of his/hers programme. However, this controversy or contest between programmes can only be overcome through compromises in which the actors modify their original programmes. This is done through the attachment of other actors, who support the programme, and in this manner the chain of associations expands. However, the mobilisation of this programme has a price; it has to change in order to make other actors attach to the programme. Through this process, the identity of the involved actors and their possible forms of interaction and action are also negotiated and changed (Ibid).

Contested and interrelated networks

The relational or non-reductionist (Law 1994) principle of ANT is not only used to explain scientific facts or larger societal structures, but also to understand how organisations are working and to challenge existing ideas about how organisations are managed. For instance, Law has challenged the idea of 'order' and calls it a modernist dream of purity; something that signifies 'the best possible' and something that is possible to reach (Law 1994). Instead, he suggests ordering is neither a stable nor unified entity:

> (…) first, the notion of order goes. Perhaps there is order*ing*, but there is certainly no order. This is because (…) orders are never complete. Instead, they are more or less precarious and partial accomplishments that may be overturned. They are, in short, better seen as verbs rather than nouns. Second, the idea that there is a *single* order ('the' social order) goes. This is the dream, or the nightmare, of modernity. But there never was a root order, so we have to replace this aspiration by a concern with plural and incomplete processes of order. (Ibid 1-2, original emphasis)

Furthermore, Law argues that each order has its own 'mode of ordering' that affords different responsibilities and roles that may produce tensions when different orderings intersect. In this way, Law's findings resemble the findings described in the above literature review, where the tension between order induced by quality development on the one hand and the existing clinical work on the other is described as inevitable.

These findings are also in line with another of ANT's analytical principles stating that entities are always contestable and fragile, precisely because their specific properties rely on the heterogeneous network that they are part of. If a new actor is introduced to the network or leaves it, the network will change its form. Or in other words, the black-box will open, and it will be possible to question the reality it depicted (Latour 1987). Berg discusses this apparent complexity and how it affects the ability to achieve a situation in

which a complex of individual practices "*...function as a large formal machine, with formal subtasks efficiently being performed according to pre-set rules*" (Berg 1997: 147). Berg uses the notions of *distribution, drift* and *overflow* to describe inherent instability in every network. *Distribution* refers to the relational understanding of agency described above; that actors do not do anything alone, but acquire their characteristics and capabilities in networks with other actors. The functioning of a given actor is not given by the actor in itself but is rather an effect of a chain of actions performed by an ensemble of heterogeneous actors. An actor, for instance a technology such as the electronic patient record, affects the work of other actors, but the functioning of the technology is also affected by the way other actors fill in information, work around the technology, uses the output information etc. Besides being a tool of information-sharing in the hospital, an electronic patient record can also be an important source of research data, and similarly the health professionals are tied to other networks where work should be coordinated. Each actor performs a small subtask in a larger chain of work, and because everyone only possesses partial knowledge of the intricacies of the whole chain of work, no one is in control (Ibid; 142-147). Based on this notion of distributed agency, Berg challenges the idea of stability, because – as he argues – each node in the network is tied up in another network, and hence *drift* is inevitable:

> Each actant does more than its specific position in the network calls for: since it is always tied up into other cross-secting networks, its concrete form will always overflow its definition in the particular network under study. (Berg 1997: 148).

Actors in a network are not tied with unbreakable bonds and accordingly, each network has a tendency to behave unexpectedly or even fall apart. Consequently, it is not only interesting to study how networks are settled, but also how they are kept stable (Latour 1991, Law 1994, Latour 1997).

ANT in this analysis

The overall aim of this dissertation is to broaden the analytical focus on quality development in a way that pays attention to quality development as more than a struggle between clinical work, professions and technologies of external regulation. In contrast, I wish to study quality work as situated and emerging processes in a context of varying demands of and resources for quality development. In order to do this, I draw on the relational understanding of orderings as achievements based on processes of translation described above. In many ways, quality work resembles laboratory work because of its explorative search for a sense of 'truth' about the world (or in this case the truth about quality), and an endless negotiation of what constitutes 'good quality' or '*the* level of quality'. Thus, I will analyse the specific quality development projects as processes of translation in which distinct definitions of quality problems and their solutions in terms of proposals of change emerge. From this also follows that I consider quality work in the specific form it takes in the health care organisations, as an achievement and a result of ongoing negotiations and compromises. *Translation is a process before it is a result"*, (Callon 1986): 224). Accordingly, I use translation as an analytical tool to describe and understand the empirical observations of the ongoing quality development processes with specific emphasis on the way actors are aligned and gain certain properties and capabilities.

As I discussed in Chapter 4, quality development processes seem to be organised as temporary assemblages that draws on, intersect and/or engage in provisional alignments with medical work. Hence, I cannot consider quality development processes as the organisation of *a* network in transformation, but as an effort of coherence-making across different networks. As a consequence of this observation, I will also use the concept of translation to explore how quality work emerges in the intersections with processes of quality development as one kind of order, and clinical work as another kind of order.

Hence, with this thesis I wish to explore quality development a) as an emerging ordering of work and b) with particular emphasis on the coexistence and interrelation of other kinds of orderings in the hospitals.

ARTICULATION WORK

As a final element in this analytical framework, I wish to return to the vocabulary of work developed by Strauss and colleagues (Strauss et al. 1997), and specifically the concept of articulation work. Articulation work refers to work performed in order to create coherence among building blocks of the arcs of work and, accordingly, is a concept that provides an understanding of how a plurality of work practices can merge into a totality (Strauss 1985). Suchmann has further defined articulation work as the work that is required *'[...] in order to bring together discontinuous elements – of organisations, of professional practices, of technologies – into working configurations'* (Suchmann 1996). Hence, articulation work constitutes a distinct type of work concerned with the fact that arcs of work do not automatically arrange themselves into coherent sequences. Strauss calls articulation work a "supra-type of work" and defines it as follows:

> Articulation work amounts to the following. First, the meshing of the often numerous tasks, clusters of tasks, and segments of the total arc. Second, the meshing of efforts of various unit-workers (individuals, departments etc.). Third, the meshing of actors with their various types of work and implicated tasks (Strauss 1985,8).

Taking both the tradition of symbolic interactionism and an interest in the studies of human interaction as a point of departure, Strauss emphasises that cooperation between actors cannot be perceived as given, but rather as a result of an effort. Each and every actor will engage in the interaction based on their own perspectives on the subject matter, and if they wish to cooperate these actors will have to engage in an effort to align their actions with each other. They have to engage in a process of *articulation* through

which they can agree upon the purpose of their mutual actions, who does what, when and to what level of quality. In many situations, interactions are based on routines, for instance, as a result of frequent interactions or "standard operational procedures". However, when new or unexpected things emerge (Strauss et al. 1997), or when new tasks or circumstances appear (Casper 1998, Fujimura 1987), the actors have to adjust or engage in negotiations to make new agreements that realign their actions within this new situation.

Articulation work is performed by everyone whose work interrelates with other types of work. An important part of articulation work is communication and, thus, both the reception of information about the work of others and the provision of information about one's own work to others. Some actors will only need to communicate with the actors closest to them, whereas others – often actors positioned in functions that encompass planning and coordination of wider structures of work – depend on a broader overview (Strauss et al. 1997, 152). In relation to the question of communication as a means of articulation work, the use of various technologies of communication has attracted the attention of many researchers (Schmidt, Bannon 1992, Fitzpatrick, Ellingsen 2013). For instance, in the study of articulation work in an airport, Suchmann has investigated the capabilities provided by technologies of communication to support the articulation of interrelated work that is separated by large distances (Suchmann 1996). Here, Suchmann describes how actors engaged in articulation work receive and translate messages about the work of others via computer screens, monitors and windows and subsequently translate these inputs into new messages that can be sent back and forth between other involved actors. However, the articulation workers' insights are restrained by the available technologies of communication – they are not able to see everything – and the technologies of communication as providers of support in articulation work are only manifest in the articulation workers' ability to use and

adapt them to the situation at hand. Furthermore, Suchmann suggests that the ability to '*read the scene*' is a necessary trait of articulation workers, and that this requires '*knowledge about past, present and future events*' combined with '*timely communication*' (Suchmann 1997).

The concept of articulation work is introduced in order to ascertain an empirical sensitivity to who and what becomes part of the negotiations, what their controversies are about, and through which sources and actions of communication they occur. Nevertheless, I do not consider articulation work to be negotiation and communication that is solely centred around direct interactions or technologies of communication. Rather, I pay attention to the quality coordinators' ability to move information, and hence communication and negotiations, around the hospital organisation as a particular resource in the articulation work related to quality development.

CONCLUDING REMARKS

In this chapter, I have introduced my analytical framework. This framework was developed in order to study quality development as emerging connections of actors and as intersections of multiple orderings. In order to provide such an analysis, I will draw on Actor Network-Theory combined with the theoretical concepts of work and arcs of work, extending the work of Strauss and colleagues on medical work in a hospital. Thus, the three analytical chapters in this thesis all draw on the same analytical framework developed around different theoretical concepts; arcs of work, translation and articulation work. I will now move on to a description of the methods used to explore quality work in the two hospital departments.

7. METHODOLOGY

It has already been described in Chapter 4 how I developed my empirical strategy and how my interest in the research subject of this thesis started. However, I have yet to describe what I did; how I collected the empirical material, the content of the empirical material and how I processed this material during collection, analysis and the writing of this thesis. Accordingly, this chapter will begin with a description of the methods used, followed by my considerations regarding the chosen empirical gaze and the challenges I faced when moving from data collection to analysis. For an overview over the entire empirical material, please see Appendix 2.

A STUDY OF QUALITY COORDINATORS AT WORK

This study was primarily performed as an observational study planned with inspiration from the technique of shadowing. Czarniawska (2007) describes shadowing as a non-participatory[18] technique of observation, where an actor is followed wherever he or she goes. This is not a new technique, but it has become increasingly relevant as a method to study organisations and organizational activities that rarely occur in one place only, but rather are dispersed in time and space, as well as the work of organizational actors who move from place to place as part of their daily working lives (Czarniawska 2007, McDonald, Simpson 2014, Czarniawska 2008, van der Waal 2014).

Mobility is a keyword in shadowing, and the intention is to observe activities related to formal events such as meetings, but also what the actors do in-between these planned and formal encounters. Moreover, it is not only the actions of the observed that are in focus, but also the actions of and interactions with other actors that are part of the

[18] I do however consider observations I made as *participant* observation, though in the form of 'participant-as-observer' where I openly explained about my presence as a researcher and primarily followed the quality coordinators around without participating actively in their activities (Justesen, Mik-Meyer 2012).

shadowed persons' network (or as Czarniawska phrases it: *'interconnected acts'* (Czarniawska 2007: 14)). The study of these interactions becomes just as important as the movements of the observed actor, and this will, according to Czarniawska, reveal the circularity of social life as a process in which *"[a]ctions and events are reactions to previous actions and events and provoke further actions and events"* (Ibid:34). Accordingly, this method also relies on the assumption that organizational events are interrelated and interdependent, *and* that it is important to study both the 'significant events', such as meetings, workshops etc., and even the smallest and most mundane, trivial and often inconspicuous events in-between, in order to understand how organising and management are performed (McDonald, Simpson 2014, van der Waal 2014, Gill, Barbour & Dean 2014, Natalia, Luciano 2014).

As a method, shadowing has only been described briefly (McDonald, Simpson 2014, Gill, Barbour & Dean 2014), but in essence it is a structured participant observation of actors performing their work. This may constitute:

> (…) recording in writing everything that is said and done, attending formal and informal meetings and conferences, interviewing him and other people who were present during shadowing, and accessing various notes and documents (Czarniawska 2007:30).

More specifically, I approached it as a method containing at least three different though often simultaneously occurring approaches to the construction of empirical material. The first mode is participant observation (van der Waal 2014, Atkinson, Hammersley 1994) made by the researcher, who immerses herself in the organisation framed by the movements made when following the shadowed actor. This allows the researcher to observe the various actions and interactions that emerge in different physical settings and in situations and how events move from formal to less formal. The second mode relates to the one-on-one relationship between the researcher and shadowed actor, which allows for ongoing conversations about the observed, and hence also the possibility to

both learn about the shadowed experiences and interpretations of the specific situation that they are both part of by asking questions along the way (Raulet-Croset, Borzeix 2014). Thirdly, it is a method that provides the possibility to observe the actions and interactions of actors, crossing the path of the shadowed actor, as well as to engage in informal conversations with them. In the following, I will provide a description of how I approached this part of the fieldwork, in these three modes.

'Being with'

I originally planned to perform the observations during a period of one a year in each department, with monthly or bi-monthly visits each lasting a week. The observations began in the summer of 2012 at the surgical department. However, around Christmas the quality coordinator in this department decided to go on leave for six months. Hence, the observational period in this department ended up lasting for six months and consisted of four whole weeks of observation combined with occasional visits to the department to participate in meetings. This strategy was replicated in the medical department, where observations began in the summer of 2013 and lasted until late autumn 2013. Over a seven month period, I spent approximately four weeks on observation. This strategy of doing week-long observations over time was chosen in order to gain insight into everyday, mundane activities and processes of both long and short duration. This strategy proved useful, as it made it possible to study the patterns of both daily routines and processes of longer duration. However, as I will return to below the ability to see and present these patterns was challenging and required a special attention when presenting and analysing the material.

The observations followed the working hours of the quality coordinators, starting every morning around 8:30 am and ending when the quality coordinators had completed their daily tasks and were on their way home. I followed the quality coordinators wherever

they went, and hence the observations included office days, lunch breaks, formal and informal meetings and even highly sensitive and emotional situations involving arguments and anger. An inherent challenge of the chosen method of observation is that the presence of the researcher must be explained to and accepted by all other actors that are present during observations (Czarniawska 2007: 56, Johnson 2014). In Chapter 4, I described how I gained access to the hospital and how the quality coordinators studied in this thesis volunteered. This relatively easy and unproblematic negotiation of access characterised the entire fieldwork, and at no time was I asked to leave a meeting, conversation or other encounter. On several occasions I was reminded of my secrecy when given confidential information on either patients or staff, but I was met with an impressive amount of trust that allowed me to be present during every aspect of the quality coordinators' day.

Still, the fieldwork did not progress without some negotiation. However, this negotiation primarily concerned what constituted 'interesting events' rather than questions of access. Several times, I had to convince the quality coordinators that I was interested in a 'normal day' and not only in extraordinary 'significant events' (McDonald, Simpson 2014). Sometimes the quality coordinators told me that it was going to be a boring day, because they had to sit by their computer the whole day, and even suggested that I come back another day when more exciting things (such as meetings or workshops) were planned. I insisted on staying, and these 'office days' always turned out to involve interesting, spontaneous and informal interactions with managers or staff in the departments who passed by to ask a question, tell an anecdote, small talk or air a complaint about something. Additionally, it was also often on these days that the quality coordinators had the time to 'go for a walk' in the wards of the department and in that way make themselves available for informal interactions with managers and staff, who

often otherwise never find their way to the quality coordinator's office on the top floor of the hospital building.

However, performing shadowing can in some ways be discomforting both for the researcher and the person being shadowed (Czarniawska 2008, Gill, Barbour & Dean 2014). Regarding the latter, you are embedded in someone else's routine (Gill, Barbour & Dean 2014) and observation and note taking may be perceived as intimidating. Though it was especially on these 'office days', when only I and the quality coordinators were present, that I felt that the quality coordinators were uncomfortable with my presence – and to some extent I also experienced it as uncomfortable just sitting there without doing anything. This discomfort on the part of the quality coordinators was expressed in several ways. Very often they kept on talking, explaining to me what they were doing, to whom and on what matters they were emailing and talking on the phone, what they were preparing for, and what was on their minds in general. After just a few days of observation, I decided to bring my own laptop and began writing field notes from that day or the day before, so that I at least felt that my role as an observer was less intruding. On some occasions, I also found a report or folder with project documents in their office and asked permission to read it while they were working on the computer. This did not stop them from talking, but it seemed to eliminate some of their discomfort that I was not just sitting there, ready with my pen and notebook.

'Commented walks' and 'go-along interviews'

As I have already implied, this fieldwork did not only include my observations of the actions of the quality coordinators and those they interacted with. Roulet-Croset & Borzeix (Raulet-Croset, Borzeix 2014) talk of 'commented walks' as an approach where the researcher is both interested in observing the different spaces and situations of interaction that appear when following the path of a shadowed actor and the shadowed

actor's interpretation of what is experienced with the researcher. Or put differently, it is a method that *'elicits actors' perspectives situated within organizational contexts'* through their own accounts of the observed situations (McDonald, Simpson 2014: 14). In many ways, it makes sense to talk about this fieldwork as a 'commented walk', because when I followed the quality coordinators around while they were performing their work, they usually explained what they were doing while they did it. It has already been mentioned how they explained whom they emailed with and about what during office days, but when we were on the way to or from meetings, standing in the elevator or having lunch, the quality coordinators gave me their immediate impressions of the situation we had just left or were about to enter, or they explained the history of particular quality development processes in the department, what worried them, motivated them etc. Additionally, the many hours spent with the quality coordinators also gave me the opportunity to ask questions about what I observed, and I was able to engage in conversation with other actors (ward managers, nurses, doctors, consultants etc.) involved in the empirical situations that I became part of through my shadowing. These 'go along' interviews (Raulet-Croset, Borzeix 2014) were mainly carried out as informal conversations and were often based on a curiosity that started the day before or on something I had observed but did not understand. Most often, however, they took place as spontaneous conversations.

Crossing the path of others

Shadowing the quality coordinators also led to observation of other actors performing their jobs, either in direct interaction with the quality coordinators or in the physical spaces to which the shadowing led me. Hence, the continuous move from space to space and the shifting interactions of the quality coordinators with actors who were not always informed about who I was and why I was there required some ethical considerations. Shadowing is a quasi-covert method (Johnson 2014) in the sense that the researcher

comes to observe actors who are not aware that they are participating in research. In this study, some of the people in the quality coordinators' networks got used to my presence, because we met on a daily basis, and they knew the purpose of my study. These were the closest colleagues of the quality coordinators, the department managers and to some extent also the clinical managers in the wards, with whom the quality coordinators continuously had meetings. However, the observation of people who were not aware of the purpose of my presence particularly took place in informal interactions where the quality coordinators met someone (e.g. a nurse, doctor or secretary from the wards), for instance in the hallways of the hospital, and where detailed and sometimes confidential information was exchanged. Then this person would leave, unaware of the reason for my presence. The quality coordinators made an effort to present me to those they interacted with, but sometimes the interactions were so brief that there was no time for further introductions. Even in meetings, where I also attempted to present myself to every participant and make them aware of the fact that I was a researcher and not taking the minutes (an impression that they easily could get, since I was writing notes constantly throughout these meetings). Some people arrived just before the meeting started and after the meeting had begun, and here I found it inappropriate to interrupt the meeting to present myself. Hence, there was almost always someone in those meetings who was not aware of who I was and what I was doing. In the surgical department, I tried to solve this problem by making a small poster to put on the information boards in the department with my picture and a short text describing my project. I am not sure whether it was circulated or noticed by anyone, though.

Only on a few occasions did I sense that someone was uncomfortable with my presence. In one situation, I observed how a participant in a meeting sitting next to me covered her notes with her arm and almost turned her back to me, and in another situation I was confronted directly by a person who felt uncomfortable with me potentially becoming

part of my research reports. In this situation, I took the time to explain my methodological strategy and promised this person that I would not publish anything involving her without conferring with her in advance.

Additional sites of observation

In addition to observations of the quality coordinators' work, I was given the possibility to participate in a number of meetings in the hospital's quality coordinator network and in introduction courses in the two departments. I will briefly describe the observations that I made here, and then I will move on with describing how the formal interviews were conducted.

Meetings in the quality coordinator network

The quality coordinators from the 10 departments in the hospital were organised in a network with monthly meetings. The meetings were facilitated by the hospital's quality manager and quality consultants from the department of HR & quality and were an occasion to share information on and experiences with quality development. Accordingly, these meetings addressed various themes of common interest, such as accreditation, information on and discussion of mandatory subjects for audits, audit processes, information on tools for pain measurement etc.

I first attended one of these meetings in the summer of 2012, where I was invited by the hospital's quality manager to present my study to the quality coordinators. This meeting took place just before the first round of accreditation of the hospital, and the forthcoming external survey was a major theme. The next meeting I attended was just after the external survey, in which the hospital had received the best possible score. Accordingly, the visit from the external surveyors was the key subject of this meeting, and in this way the content of these meetings in the quality coordinator network

followed the structure of the major common activities of quality development in the hospital.

For six months, I was on the list of persons invited to these meetings, but I usually participated in the meetings in the periods where I was carrying out observations in one of the departments. These meetings provided me with an insight into the focus of attention in quality development outside the departments. Thus, I became aware of the way efforts of quality development were organised on the hospital level, and how the hospital related to the regional and national structures of quality development.

Introduction courses

In both departments, I was also invited by the quality coordinators to participate in an introduction course to become acquainted with the department's wards and clinical functions. In the surgical department, a whole week was planned just for and I spent half a day in each of the department's wards. Hence, I came to observe pre-examinations, a surgery and the work performed in the outpatient clinic and the bed units. In the medical department, I followed in a guided tour in the department along with new staff in the department. Similar to the field notes made in relation to the observation of the quality coordinators, I wrote notes whenever I had the possibility. I endeavoured to make my notes during the observation, but otherwise right after completion of the observations.

These introductory courses were very informative as they provided me with an overview over the department's wards and the primary clinical functions performed. Besides enabling me to find my way around the hospital on my own, these courses also made me able to ask more precise questions during observations and interviews, because I was able to refer to details I had observed in the wards; for instance specific clinical procedures, the physical surroundings and furnishing, or material and technological artefacts. The

quality coordinators also, referred to these courses during our conversations (*'As you might notice during the introduction...'),* and I was thus able to place their explanations and elaborations in a context. These courses, especially the course in the surgical department, were also a way for me to become acquainted with the different versions of 'quality' that I elaborated on in Chapter 4. I was, off course, exposed to these different versions because I presented myself as a researcher interested in quality and quality development. This piece of information almost immediately prompted the actors I observed to show me what procedures they performed in order to document or assess quality, share their thoughts on what constituted or became obstacles to high quality, or even asked me if I considered their work as being of high quality. I was also guided through their overall clinical tasks as they explained to me what they did along the way or after the patients had left the room, in the same way as the quality coordinators did.

FIELD NOTES

Throughout the periods of shadowing, I wrote notes. However, because I both observed while on the move and in situations where I was a more passive observer (for instance in meetings) my note-taking technique differed depending on the specific situation. I always carried a notebook and a pen with me, so I could take notes in 'real time'. This was feasible in situations where I had the ability to sit down, for instance when observing a meeting or when I was sitting in the quality coordinators' offices. In these situations, I was able to capture details in the wording of the conversations, make notes on body language and on what the physical surroundings looked like. However, on some occasions I stopped taking notes because private matters were discussed and then just wrote notes summarising the contents of the conversation afterwards (e.g. *nurse enters office, she closes the door, says that she is about to resign, new job*). In this way, I made a note of the interaction (with whom and about what) but left out the details (although as I have already noted; no one ever asked me to stop taking notes, so in that sense I was the

person censuring the field notes). In other situations, we were on the move, and note taking was harder to perform standing or walking. In these situations, it was not possible to make detailed notes in a notebook, so I made brief notes afterwards – for instance when sitting in the quality coordinators' offices or after I had left them when the day had ended – and supplemented these notes with details from my memory when writing up the field notes. All notes was transferred to the computer immediately after the periods of observation, and here I often supplemented with additional details that I remembered. It was also in this process that I began commenting on or asking questions about the empirical material in a 'comments and thoughts' section placed after the transferred notes. These comments and questions varied in content, some of them being reminders to request supplementary material, others being more analytical and even sometimes referring to theoretical concepts. However, their genesis did not follow any particular or structured pattern, and they were just noted as they came to my mind during the process of transfer. Below I will provide a further description of what I did with the empirical material and what guided my choice of empirical material. Before that, however, I will turn to the additional and supplementing empirical material that I collected during the field study.

Interviews

As stated in the section on the components of the participant observations, I was not only observed but also engaged in informal conversation with the quality coordinators as well as the actors I met while following the quality coordinators around the hospital. These conversations could be described as unstructured interviews (Neyland 2008: 112, Justesen, Mik-Meyer 2012: 52) that did not follow a pre-planned structure or set of themes. Rather, they occurred along the way, when I became curious about something I observed or when the quality coordinators or others felt inclined to explain what they were doing and I asked additional questions.

Besides the 'commented walks' and 'go-along interviews' that took place during the observations, this study also encompassed formal semi-structured interviews (Justesen, Mik-Meyer 2012). The two periods of observation were initiated by a semi-structured interview with the quality coordinators that was structured around the following four key themes:

- The quality coordinator's professional background
- Past and current tasks and positions in the department
- Important co-workers
- Methodological and technological resources.

The main purpose of these interviews was to gain an overview over the way quality development was (formally) organised in the departments, and to learn about the quality coordinators' background and what they regarded as their main tasks and responsibilities in the department. These interviews were performed in the quality coordinators' offices and lasted approximately 2 hours.

As a supplement to these interviews, as well the observations, I was also regularly in email contact with both of the quality coordinators, where I requested information on some of the processes I observed and participated in during the periods of observation. Some of these continued after I left the departments, but became a subject of my analysis and hence I was also continuously in contact with the quality coordinators so as to stay informed on the status these particular processes.

Furthermore, I performed semi-structured interviews with head nurses and chief physicians from the departments and the hospital's quality manager. These interviews regarded the motives behind the chosen organisation of quality work and the perceived role of the quality coordinators in the departments and the hospital, respectively. The

insights from these interviews are primarily used to inform the context descriptions of this thesis.

All interviews followed an interview guide and were transcribed verbatim.

I have now provided a description of the methods used and the sources of the empirical material of this thesis. In the following, I will explain how I analysed this material and how the choices of empirical material were made.

From fragmented field notes to coherent analytical stories

Shadowing has been emphasised for its ability to reveal how empirical events are interconnected and interdependent, even though they are dispersed in time and space (Czarniawska 2007, McDonald, Simpson 2014, Czarniawska 2008, Gill, Barbour & Dean 2014, Czarniawska 2014). I tend to agree with this observation, but the interconnectedness and interdependence did not reveal itself immediately. The terms 'walking with' and 'following' that I used in the above when describing what I did may give the impression that I observed coherent events that followed one another in a logical progression. However, during the fieldwork I experienced the process more as a criss-crossing and jumping from one spot to another in a pattern I was not always able to understand. When I transferred my field notes from my notebooks to my computer, I typically noted the main events of the current day in the beginning of the document (see excerpt from field notes in Figure 5). These notes are also illustrative of a typical day for the quality coordinator; the many different themes and projects in which they were engaged, the physical places that they went to and the people with whom they interacted. For me as an outsider, the immediate impression was that I was witnessing an incoherent and fragmented mess.

I think a prominent reason for this feeling of being lost in fragments was that a study planned to involve shadowing – and participant observation in general – is actually not planned at all, at least not from the researcher's perspective. Rather, it is unpredictable and uncertain, because you have to go along and make do with the empirical course provided for you (van der Waal 2014, Gill, Barbour & Dean 2014). In the case of this fieldwork, where I stepped in and out of the studied field according to the planned strategy, I witnessed many different projects and series of activities that where starting up, ongoing or finalised during my observation period, but I was very rarely present for the whole life cycle of such projects or consecutive activities. Additionally, what I observed was determined by the quality coordinators' movements within the organisation. Hence, this feeling of only seeing fragments was supplemented by a feeling of witnessing a highly selective empirical body of material. As I have already claimed, the clear advantage of following the quality coordinators was that it enabled me to be present in situations of informal interactions and when mundane activities were performed. Situations that may have been lost from the quality coordinators' minds', or situations that would have been considered unimportant in a formal interview situation. I was, mainly in the beginning of the fieldwork, tempted to reframe my empirical strategy and leave my original idea of following the quality coordinators, and instead identify and follow some specific quality development processes with a beginning and an end. Yet with this study I did not aim to study the fate of individual quality development projects or their effects. Rather, I was interested in how quality work was constituted through particular connections of actors in the departments; what kind of work did this require? Obviously, the quality coordinators were a large part of this work, so I resisted the temptation to change the empirical strategy and stayed true to my original plan. Furthermore, if fragmentation was a central premise of the quality coordinators' work I did not want to erase this from my observations, even though it caused me trouble when trying to find my own sense of order in a messy body of material.

Figure 5: Overview over the quality coordinators' activities during a week of observation (surgical department)

Monday	8:45-11 am: Meeting of the department's quality consultants – Sofie, Anne, Iben (the department's quality consultants) and Lene (the quality coordinator) 11-11:30 am: Walked to surgical wards and the outpatient clinic to find out where to place Kaizen boards 11:30 am-12 pm: Lunch 12-12:30 pm: Lene and Iben talked about an assignment that Iben is going to take on as part of a course in project management. 12:30-14 pm: Preliminary meeting about a project, 'Relational Coordination'. 14-16 pm: Lene's office. Preparations for the next day's meetings.
Tuesday	9-10 am: In Lene's office: emails, paperwork etc. Lene showed me the hospital's intranet, and we talked about the way quality work is organised in the department. 10-11 am: Weekly meeting with Christina (consultant from dept. of HR & quality) about the project on relational coordination. 11-12 am: In Lene's office: I have some questions about the project on relational coordination, Lene explains the process. Emails, paperwork etc. 12-12:30 pm: Lunch 13 pm: Meeting with Karen and Anders (ward sister and consultant physician in the surgical ward) and Chistina about the project 'Relational Coordination'. 13-14 pm: Meeting with Louise and Flemming (the department's head nurse and chief physician): status on present quality work. 14:30-17 pm: Workshop with former patients on experiences from surgery (Lene was absent due to illness in her family, Sofie (quality consultant in surgical department) participated instead).
Wednesday	8:30-9 am: Meeting on 'Relational Coordination' – Flemming, Louise, Christina, Sofie and Lene. 9-10:30 am: Summarising after the meeting in Lene's office – Christina, Sofie and Lene. 10:30-11 am: Short meeting of the department's quality consultants – Sofie, Anne and Lene. 11 am-14 pm: Lene and Sofie prepared a forthcoming workshop on procedures for pre-examinations and an information meeting for the staff in the department on the project on relational coordination.
Thursday	8-8:30 am: Information meeting in the surgical ward on the project on relational coordination. 8.30-9 pm: Karen's office – small-talk about the meeting. Evaluation - did it go all right? (Lene, Sofie, Karen, Christina, Louise). 9-11 am: In Louise's office. Flemming and Louise are dissatisfied with the way the project on relational coordination is managed (Lene, Flemming and Louise). 11-11:30 am: Meeting about relational coordination (Flemming, Niels, Louise, Christina, Sofie and Lene). Lunch The rest of the day: Lene prepared for meetings and events in the coming week. Several people stopped by to ask or discuss pending issues.
Friday	8:30-12 am: Lene's office: as the day before.

Pushing for a sense of order

I began my search for this order as early as during the fieldwork. From this it also follows that the initial phases of coding did emerge from my own experiences of entering 'a foreign culture' that I could not readily understand, and which hence left me with an urge to create order. In this phase, I was overwhelmed by the many encounters between the quality coordinator and what to an outsider seemed to be an infinite number of other actors in the hospital. Thus, I began a process of listing the interactions that I observed by asking:

- Who are the quality coordinators interacting with?
- Where does this interaction take place?
- What are the subjects of these interactions (what are they interacting about)?

Thus, I began making lists of the actors that the quality coordinators interacted with during their daily work. I also noted the place of the meeting as well as the reasons for this meeting (see an excerpt of this list in Figure 6). Through this list, I gained an overview of the many different types of interactions, some of which were concurrent series of meetings, others of which were meetings regarding particular quality development projects, production of quality data or particular quality problems identified in the department. Other interactions happened spontaneously in the hallways, during lunch or before a meeting, when a short conversation clarified a question or someone's frustration was aired. I discovered a pattern when these formal and informal encounters entangled; sometimes the tacit knowledge from the informal interactions was used as a resource in the formal interactions and vice versa. Furthermore, I became interested in the quality coordinators' role as 'connectors' in these encounters, but it also occurred to me that the best way to describe and analyse this was to make the individual quality development projects the significant fix-points of

these connections. Accordingly, I began to order the connections in relation to the particular projects. To paraphrase Latour, I began to trace connections or associations of actors (Latour 2005: 219-221) – with the quality coordinators in a central role – over the individual projects' running period.

Figure 6: Excerpt of list of the quality coordinators' interactions – actors, places and subjects (drafted during field study)

	Actors	Places	Occasions
Department	Department managers	• Head nurses office • Quality coordinators office • Hallway by the offices • Coffee machine, lunch etc. • Meeting rooms, department	• Weekly information/briefing meetings • Meetings on particular projects • Short conversations/quick decisions or briefings • Monthly meetings in department's quality board
	Co-quality workers	• Quality coordinators office	• Daily/weekly meetings – mutual information sharing, distribute tasks • Particular quality problems • Pending or future quality development projects
	Ward sisters	• Ward sister's offices • Hallways • Meeting rooms	• Particular qualiy problems • Pending or future quality development projects • Monthly meetings with ward sisters • Implementation of new technology or problems with old technology • Audits etc. (Producing quality data) • Private matters
	Consulting physicians	• Quality coordinators offices • Hallways • Meeting rooms	• Particular qualiy problems • Pending or future quality development projects • Audits etc. (Producing quality data)
	Staff (Physicians, nurses, secretaries etc.)	• Hallways • Workshops • Meetings	• Quality development projects • Particular quality problems
Other departements	Clinical managers	• Meeting rooms • Hallways in wards	• Mutual quality development projects • Particular quality problems
	Staff (Physicians, nurses, secretaries, porters, physiotherapists etc.)	• Meetings • Workshops	• Particular quality problems • Quality development projects • Audits etc. (Producing quality data)
Hospital	Other quality coordinators	• Meeting room (administration building)	• Network for quality coordinators
	Quality manager	• Meeting room (administration building)	• Network for quality coordinators • Quality development projects
	Quality consultants (Department for HR & Quality)	• Meetings rooms in department or in administration building	• Network for quality coordinators • Particular quality problems • Quality development projects • Audits etc. (Producing quality data)

This became in a way a turning point in my analysis of the empirical material because I began to see not only *who or what* connected, but also *how* the connections came into being and *what* held them together – at least for as long as the project or process were underway. In this way I also began to understand quality work as a bricolage Accordingly, the bricolage of quality work was made of the many emerging and temporary connections of managers, staff, methods and technologies of quality development etc. constructed in relation to the specific quality development projects in the departments.

In chapter 8 and 10 the analysis follows a particular project in the surgical and medical department respectively and in chapter 9 the production and utilisation of quality data is central. These choices deserve an explanation, because, as I have claimed from the outset of this thesis, I was *not* engaging in a study of particular methods or technologies for quality development. The empirical material used in the analyses is chosen as paradigmatic cases, which *"(...) highlight more general characteristics of the societies in question"* (Flyvbjerg 2006). More specifically the examples are chosen because they are telling illustrations of some of the more general patterns in the processes of making connections between actors in quality work:

- How connections among actors where constructed in relation to the construction of a common matter of concern (the purpose of a project or a quality problem).
- How development of quality work interfered with and became affected by the existing organisation in the departments.

Thus, the choice of specific empirical examples are first and foremost made according to their ability to illuminate how connections in quality work were constructed, and not out of an interest in these projects as events of emerging connections related to quality work.

CONCLUDING REMARKS

In this chapter, I have described the methods that I have used to explore quality work in the two hospital departments. The primary methods were participant observation framed by the quality coordinators days of work; a method that allowed me to observe a variety of interactions, events and places. This method also included my own active engagement with both the quality coordinators and those actors they interacted with and deployed ongoing conversations with both quality coordinator, managers and staff in the departments in a way that can be framed as 'commented walks' and 'go-along interviews'.

In this chapter, I have also described how my own sense of coherence was challenged during the field studies and how I attempted to create an order in the material by looking for connections, firstly between the quality coordinator and other actors in the hospital, and secondly between actors engaged in particular quality development projects. Hereby I detected particular patterns that guided the choice of empirical material in the forthcoming analysis provided in Part III of this thesis.

PART III

'OPERATION JOINT FUTURE'

During the fieldwork performed in the surgical department, I became interested in a particular quality development project referred to as 'Operation joint future'. Initially, this process caught my attention because it made a lot of 'noise' due to ongoing controversies that threatened the project's viability. Later on, I came to see it as an example that could provide more generalizable answers to the question of how actors became connected to specific quality development processes. Hence, I engage in an analysis of the initial phase of this project, in which I explore the intricacies of formulating the project's purposes and the attachment of key actors to the project.

I begin this chapter by describing the reactions and controversies related to two versions of the purpose 'Operation joint future'. Following this, I summarise some of the significant actions taken to involve significant actors in the project and construct a network that is stable enough to exist throughout the lifetime of the project. Here, I discuss how not only direct confrontations between the implicated actors but also the use of constructions of perceived preferences change the course of the project. Finally, I elaborate on the instability of quality work as a result of its interference with power relations and hierarchies in the hospital.

'OPERATION JOINT FUTURE'

I encountered the project 'Operation joint future'[19] when it was in its initial phase, and hence in a phase where the project's purpose was about to be defined, concurrently with attempts to engage managers and staff from different parts of the hospital organisation.

[19] In Danish: 'Operation Fælles Fremtid'.

This name makes use of the double meaning of the word 'operation', referring both to the place – the surgical department – where the project was initiated and the project as a dedicated and coherent set of activities.

As mentioned above, the project 'Operation joint future' took place in the surgical department, more specifically in the surgical ward. The quality coordinator, Lene, described this case as an extreme case, because of the large number of stakeholders that took an interest in the project and challenged the ability to formulate a cohesive purpose that everyone could work towards together:

> It was a challenge that a very large group of managers were enrolled in the working group of the project – and a lot of them were also in the steering committee, which was already far too big.
>
> (…)
>
> The result was that, with all these people, it was very difficult to manage both the working group and the steering committee effectively, because everyone had their own agendas.
>
> (Quality coordinator)

Though somewhat extreme, this example can serve to illustrate how the project developed through the interactions of various actors with different perspectives on how to improve quality, and actors protecting their authority over certain domains of work.

'Operation joint future' was initiated in the autumn of 2012 and was part of an overall strategy in the hospital of becoming acquainted with the concept of 'Relational coordination' as a method of quality improvement (see Figure 7). The concept of relational coordination was developed by the American researcher Jody Gittell (2009), who has been able to show a causal relationship between relational coordination and medical performance. Thus, the concept has travelled the world as a promising framework for both understanding and improving health care services. This particular project in the surgical department was initiated by the hospital administration, which, as many other Danish health care institutions, had become interested in the findings of

Gittell. The surgical department's head nurse had also expressed her interest in the concept and signed up the department's surgical ward (in the forthcoming OP) as 'guinea pigs' in a pilot project.

Figure 7: 'Relational coordination', Gittell's definition (Gittel 2009)

With Gittell's own words the concept of relational coordination grew out of a recognition of the fact that a) care of patients involves multiple parties, b) the tasks performed by these multiple parties are interdependent and c) there is a great deal of uncertainty involved. Additionally, Gittel points towards the complex nature of the information floating between the involved caregivers and how time constraints are challenging the care delivery Gitell (2009). Based on these listed challenges Gittel concludes that:

"[c]oordination is not just a technical process; it is also a relational process. While coordination is the management of interdependencies between tasks, relational coordination is the management of interdependencies between the people who perform those tasks" (Ibid: 15-16).

Accordingly, she developed a definition of relational coordination, and developed the index below to be used as a method to investigate the level of relational coordination in for instance a hospital department.

Relationships	Communication
Shared goals	Timely
Shared knowledge	Frequent
Mutual respect	Accurate
	Problemsolving

Hereby she has been able to show a connection between relational coordination and medical performance, and the concept has travelled the world as a new and inspiring way to think about how to improve the health care services.

The precursory history of managers from the surgical department's interest in relational coordination was linked to at least two current challenges in OP. One reason for setting up the project was a pressing need – formulated by the department's head nurse and chief physician as well as the quality coordinator – of improving the department's psychosocial working environment. According to them, the surgical ward had been

adversely affected by several mergers within the last few years and was suffering from hostility between the old fractions and between nurses and doctors: bullying and unwillingness to cooperate were characteristic of the working environment. This had become even more pertinent after the death of a patient during surgery. This incident was under scrutiny as a severe adverse event and was treated with great confidentiality. However, the implicated doctor's unwillingness to listen to one of the nurse's warnings about the patient's condition during surgery was part of the story told[20]. This incident added to the history of a disharmonious working environment in the ward, and to the relevance of engaging with the framework of relational coordination.

In the forthcoming outline of some of the key events of the project, I will show how not everyone believed in the causal relationship between 'relational coordination' and quality. This led to unwillingness to be involved in the project, and this lack of involvement of some actors conditioned the decision to include a goal of effectiveness by increasing the departments' yearly number of surgeries from 2000 to 3000. This goal had already been set by the hospital directors, but the practical solutions to the implementation of this goal were yet to be found. This goal also met resistance from the departments' staff, who were sceptical about feasibility of increasing the rate of operations without increasing the staff, but the goal was included to give the project a 'harder edge' and supplement the 'soft' concept of 'relational coordination'. However, as we shall see this additional goal not only led to the connection of reticent actors to the project as expected, it also led to new interests and new resistances among other actors.

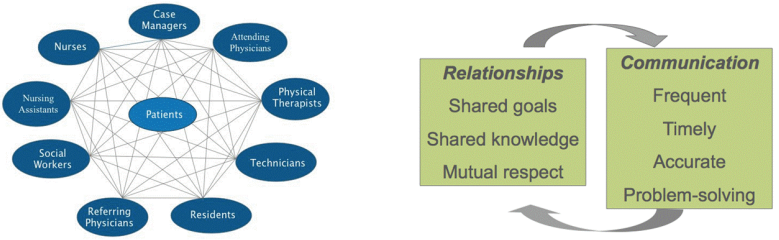
[20] This incident was being analysed in a so-called *root cause analysis* and was treated with great confidentiality. Hence, the incidence was not recounted to me in detail. I did not ask for further information on the incident either. First of all, because the handling of adverse events was not a key interest of mine, secondly, because the case was described to me as a sensitive matter that had generated a lot of distrust in the department, especially after someone had leaked the incident to a journalist. I reasoned that the more I knew about the case, the greater would be the risk of being a subject of distrust, and I did not require more details than what I was able to learn from the newspapers and what was briefly revealed to me in conversations or during meetings.

CONNECTING DOCTORS TO THE PROJECT: FROM REJECTION TO CRITICAL PARTICIPATION

The validity and importance of the concept of 'relational coordination' and the claimed correlation with quality was not embraced and accepted by everyone. This became obvious at a morning meeting in OP, where all the staff was summoned to be introduced to the project. The introduction was given by the project leader; a consultant from the department of HR&Q (Christina), and the management team from OP; the consulting physician (Anders) and the ward sister (Karen).

The doctors and nurses of OP were gathered in the lunch room, where Karen and Anders took turns to explain about the project. Karen explained about Jody Gittell's emphasis on the many relations between actors in modern health care (Figure 8, left-hand section), and she explained how the project would pay attention to these relations and how to improve them. Then she showed the seven dimensions of 'relational coordination' ([Figure 8, right-hand section).

Figure 8: Figure shown in the ward sister's slides at the information session



Source: http://rcanalytic.com/)

Anders took over and showed a hand-drawn poster that illustrated a state he called 'crazy time' (not illustrated here), a state in-between organizational changes, where the organisation is about to unlearn old habits and learn new. He explained how this slide had been presented to him when he participated in the preparations for the project, and it made him accept the importance of the project: that a merger of five wards into one necessitated a common goal that could help them work in the same direction.

He also presented the two purposes of the project:

1: To increase efficiency (reduce the time between operations [called turnover time] and reduce the number of cancelled operations)

2: To improve quality and the working environment (describe all the vital processes during turnover time, and improve the 'relational coordination' index [Figure 8, right-hand section] in the ward).

Karen explained about the methods (e.g. a week of observation performed by Christina, Lene and others, questionnaires etc.). Additionally, she explained how they defined 'turnover time' as the time slot between the final suture made in Patient A till the doctor put the scalpel to Patient B. This meant that procedures related to cleaning and preparation of the operational theatre, transportation of patients to and from surgery and anaesthesia was in focus in this project. A nurse commented on this:

> I think this project is a gift. As it is, we are only paying attention to the time of operation and hence only the doctors' work. Everything else that is done in this ward is invisible. For instance, we have to refill the cupboards continuously [with sponges, bandages etc.], otherwise it would be impossible to perform an operation.

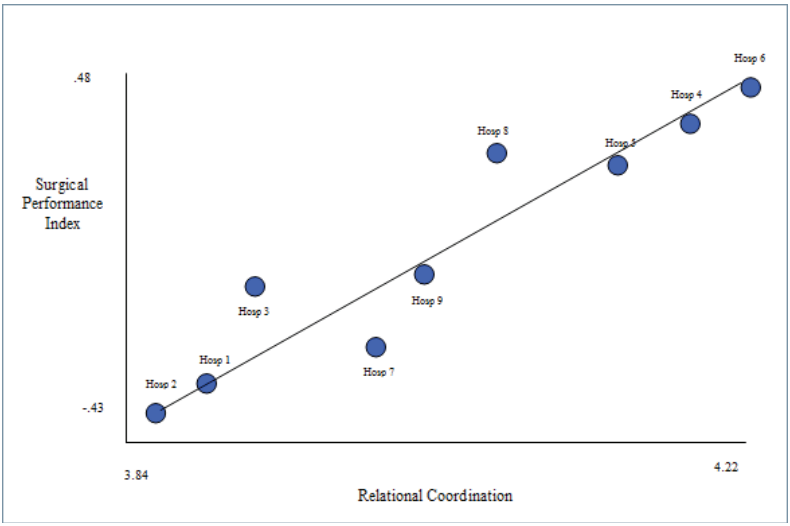
This comment gave rise to a comment from one of the doctors, who said that she could not understand why they, the doctors, needed to be included in the project, when the

subject of concern was 'turnover time'. Often she was only summoned when the patients were ready and the operation could begin, and hence she was not even present during turnover time. Karen replied that it was more often the case that they [nurses, patients and the anaesthetic staff] had to waited for the doctors in the operation theatre, because the doctors were taking their rounds in the bed unit in-between operations. As she formulated it:

> This is actually 'a relation' [referring to Gittell's web of relations], although the doctor isn't present during turnover time.

The doctor said that she accepted this explanation. Christina took over and explained about the questionnaire, which would be circulated among the staff in order to measure the level of 'relational coordination'. Several of the doctors objected to this as a valid method, saying things like: "*How can we possibly formulate questions that will validly resemble such vaguely defined concepts regarding feelings?*" and "*What, exactly, is the purpose of the project, and how can we measure whether or not the project is a success?*" Christina continued to referr to Jody Gittell's research and her findings of a linear relationship between 'relational coordination' and improved surgical performance (Figure 9).

Figure 9: The relationship between 'relational coordination' and surgical performance (Gittell 2009: 31)



One doctor, sitting with his arms crossed, was especially eager to understand [or to detect weaknesses in] the project setup, and persistently asked how they could be sure that the measures of effect could be ascribed to the project, and never seemed completely satisfied with the answers he received.

In this meeting, at least two types of resistances against the project and the then formulated purposes could be detected. The first type of resistance was related to the perceived relevance of the choice of 'turnover times' as a key concern in the project, and was expressed by the doctors. The nurse considered this choice as an opportunity to raise awareness of the nurses' contribution to a smooth running surgical performance and an otherwise invisible type of work (Star, Strauss 1999). Based on a similar reasoning, one of the doctors rejected this purpose as relevant for them to pursue, because their primary

task was the performance of surgery and because they were typically absent during 'turnover time'. Accordingly, the nurses as a group immediately involved themselves in the project, whereas the level of the doctors' involvement to the project was lower. The doctors' reluctance was, however, also related to the disbelief in the validity of the findings of a relationship between quality and 'relational coordination' in general, but also in scepticism towards the ability to detect any effects of this particular project.

This reaction, however, did not come as a surprise, and there were several attempts to accommodate this, for instance by formulating and re-formulating the projects purpose and careful selection among arguments in order to predetermine their imvolvement. In the following section, I will pay specific attention to the way in which Lene, among others, made active use of predictions about the doctors' interests and motivations in the attemps to involve them in the project.

Making the doctors' indispensable to the project

In a meeting between Lene and Christina a few days before the morning meeting in OP, they discussed how they should present the project to the staff in the ward. At the same time, they were looking for a set of slides they had received from various workshops on 'relational coordination'[21].

> Lene: I don't know how Anders and Karen have shared the presentation [in the upcoming morning meeting], but Anders has asked Sofie [quality consultant in the surgical department] to make the slides.
>
> Christina: I don't know … should we have more theory. How much more? I think we should present some of Jody Gittell's slides [shows Lene the slides (Figure 7 and Figure 8)], Maybe we need some more text?

[21] Prior to the project in the surgical department both Lene and Christina had participated in workshops held by the hospital, in which the concept of 'relational coordination' had been presented.

> Lene: No, then we will lose them [the staff]. We should avoid too much text. For some of them it will be interesting, but for others it won't. It is a bit too 'academic' to show both methods and theory. I think the figures say enough.

Later the same day, Sofie had made a set of preliminary slides, which they presented to Karen and Anders. Here, Karen and Anders decided to adjust the slides a little in order to emphasise, very concretely, how the project was relevant for the staff and what the project was about. Additionally, Pernille wanted to include information about the overall structure of the project and how it was part of a larger strategy in the hospital.

All in all, this morning meeting was carefully planned so that the perceived interests (Latour 1999a, Latour 1991) of the doctors were considered in order to align them with the overall project. The result of this planning was, as decribed above, that 'relational coordination' was presented as a solution to what the consultant doctor, Anders, referred to as 'crazy times'. In using this image he was referring to the challenges related to the many mergers. Karen, the ward sister, presented her notions of the challenges of being in an organizational reality where the provision of good services was embedded in multiple relations, and together they framed 'relational coordination' as a relevant object of development in order to improve the services formulated in the two goals of the project. This was additionally supported by the quality consultant, Christina, who referred to Jody Gittell's findings of a relationship between 'relational coordination' and surgical performance.

Though the doctors' maintained their scepticism by discrediting both the methodology of Jody Gittell (*How can one measure feelings?*) and the methodology of the project (*How can we detect the effects of this project?)*. In this way, they not only rejected the particular purposes, but the entire underlying network of the project, i.e. research results, arguments presented as graphs etc. Overall, the level of the doctors' attachment to the

project was low compared to that of the nurses, which was also reflected in the efforts made to adjust the project to match the doctors' preferences.

Because this particular project set-up was born out of an interest in 'relational coordination' as defined by Jody Gittell, it was not possible to make major adjustments to this particular element of the project or erase it. Nor was it reasonable to continue the project without the doctors, as they were important participants given the initial focus on a disharmonious working environment. Therefore, other means had to be used to convince the doctors of the importance of their participation. Among these means was the decision of paying attention to 'turnover time'. A few days before the information meeting, Lene explained to me how she and Christina had spent a lot of time in the early stages of the project on convincing Anders that 'relational coordination' was a fruitful concept in terms of quality development. In the early stages of the project, he was not able to see the relevance of the concept and the need to transform what he later himself called 'crazy time' into a more peaceful and cooperative atmosphere. Rather, this was an understanding that he had acquired along the way.

Christina, on the other hand, had been eager to jump directly into the issues regarding the working environment and wanted to perform what Lene referred to as a 'cultural anthropological analysis of the department'. However, Lene had put an effort into steering the project towards other purposes, due to the doctors' resistance (represented by Anders' initial reactions to the project) and lack of interest in matters that were outside what they understood as their core task. Lene argued for this switch in attention in the following way:

> Culture is a complete turn off for the doctors. We have to look at something that derives from culture, something about the patient as the central figure, instead of looking at the communication between nurses and doctors. It [culture] is much too pretentious. Focus

> on the patient, then the rest will follow. In OP they only pay attention to the site of operation – everything above and beyond that they tend to forget. We had a really difficult time selling it [the focus on culture and communication] to Anders. The motivation has to be 'improved patient trajectories' instead of 'communication'. What caught his attention was that it could be related to perfecting the service [provided to the patients], on every level. We have to focus on something like that, in relation to motivation.

Thus, the project's purposes were not solely derived from the framework provided by 'relational coordination' – including definitions and causal understandings of quality – but from strategic considerations about how they could affiliate the significant actors with the project.

In the information meeting presented above, the inclusion of 'turnover time' as an area of development prompted an excited and positive reaction from a nurse, but an equally unexcited reaction from the doctors. Hence, the addition of 'turnover times' as a supplementary purpose to accommodate the doctors' apparent dislike of 'culture' and 'communication' resulted in a rather different reaction from the one that Lene and others had originally hoped for. Actually, the negotiations of the purpose continued in this meeting by way of the doctors' confrontation with the project, and though they did not reject it by refusing to participate in the project, they continued to participate as critical participants.

CONNECTIONS AND DE-CONNECTIONS: FROM UNCONDITIONAL TO SCEPTICAL PARTICIPATION

Shortly after the morning meeting in OP, new tensions arose in the project. In the previous section, the willingness to participate in the project concerned like/dislike of and belief/disbelief in the perceptions of how to improve quality that were inscribed

into the formulated purposes. In this section, I will show how 'Operation joint future' is also an example of how quality work both interfered with and emerged under the influence of the hierarchies already established in the hospital.

Since it was decided that the project should pay attention to the efficiency of 'turnover time', the project was expanded to also involve the anaesthetic department and the service department (responsible for porters and the cleaning service). This turned out to be the outset of another kind of problem related to a prevailing tension between the surgical and anaesthetic department. In the beginning, the department managers from the anaesthetic department refused to let the department participate in the project. As the head nurse from the anaesthetic department explained to Christina and Lene in the hallway after the information meeting, they were surprised that they had not been informed, as the project also concerned them.

> Our work takes us all over the hospital, so we always hear a lot of rumours. Our own philosophy is to inform our staff as early as possible. I think we would have been satisfied with an early warning that the OP was preparing a project that would include us at some point.

However, there was more to their reluctance than lack of information, and as it turned out there was a pending power battle over the right to control OP. The head nurse from the surgical department, Louise, had started a dialogue with the department managers from the anaesthetic department in order to persuade them to participate in the project, and not least to allow for the use of their staff in the future workshops of the project. She concluded that their unwillingness to participate was related to a feeling of their territory being trespassed on, and that they were disappointed about being enrolled after the project had been defined:

> They [the anaesthetic department] feel that OP is their workspace, just as much as we do, and they feel left out of the dialogue.

In addition to Louise's diplomatic efforts, the hospital management had also been engaged in the project and also took part in attempts to convince the anaesthetic department to join in. Lene suggested that they offer the anaesthetic department an opportunity to influence the current draft of the project description: "*so they won't feel that we're the only ones who have any influen on the project*", as she put it. After some persuasion, and an agreement to enrol the head nurse and chief anaesthesiologist in the anaesthetic department in the project's steering committee, they finally agreed to be part of the project.

Changed motivations

This tension between the surgical department and the anaesthetic department, however, was not only a tension that required attention from the department managers. A disagreement between Karen and Anders revealed that the struggle and concern over 'whose ward it was' were also threatening the progression of the project at the ward manager level. As the clinical managers of the ward, Karen and Anders were assigned a central role in the project. This role included that they were to motivate the staff and communicate the purposes of the project, as we saw them doing in the morning meeting in the previous section. The purpose of increasing efficiency in relation to 'turnover time', and hence paying attention to a closer relationship between actors beyond OP, caused Karen to express concern regarding her future position in OP. This concern was expressed during one of the project meetings, prior to the morning meeting:

> Christina [to Karen and Anders]: Are you satisfied with the name "Operation joint future"? It's supposed to mean that everyone involved in operations should be part of a shared future.

Karen: As long as it doesn't appear to be a solution where we [OP] and the anaesthetic department become one department, or that the anaesthetic department should take over OP.

Anders: I don't think that we should exclude ourselves from any solutions beforehand. There is no point in going through with the project, if we exclude ourselves from certain solutions.

Karen: I cannot be part of the project if Anders, at the meeting [referring to the morning meeting in OP] in front of all the staff, is going to say that a possible solution is a radically different organisation with the anaesthetic department in charge of OP. Then my position will become unnecessary. The hospital management ruled this out as a possibility a long time ago.

Christina: I do not think we should discuss the solutions until we have finalised the first phase of analysis; before the second workshop of the project, that is.

Karen: But the staff will ask about it, and we might as well prepare an answer. I would prefer us to agree on this answer.

Anders: Well, I promise that I won't say anything, but I don't understand what you are afraid of.

Karen: I am not afraid of anything, and the same goes for the staff, but I am sure that the question will be asked. I am just afraid that you [to Anders] will talk about it.

Anders: And I promise that I won't.

This conversation went on a few days before the morning meeting in OP and led Christina to express doubt as to whether Anders and Karen were able to function as forerunners of the project. The above conversation reveals how the reformulation of the project's purpose, which was made in order to attract the doctors to the project, also caused Karen to rethink her motivation to engage in the project. The focus on 'turnover

time' implied an unavoidable affiliation of the anaesthetic department, which in turn made Karen' reluctant to participate in the project.

Apparently, Karen's fear of what the project could lead to in terms of organizational changes was related to an old controversy between the two departments. This became apparent in a meeting between the department's head nurse, Louise, the chief physician, Flemming and where Lene gave a summary of the meeting between Christina, Karen, Anders and herself, and the tensions that it revealed:

> Louise: This project is a mapping procedure. We have to hold on to that.
>
> Lene: Anders is focused on how to optimise the workflows. Karen is focused on power and says that she cannot support a different ownership of OP, as her function will then disappear.
>
> Flemming: OP and the anaesthetic department are each other's main players. This is exactly what we should learn from 'relational coordination', isn't it? Not who is in control of OP?
>
> Louise: This is actually the beauty of this project. It reveals all the skeletons that we have in our closets, although it is about something else entirely.
>
> (…)

In the previous section, the motivations of the doctors and nurses referred back to their belief/disbelief in the underlying ontological assumptions of the project and their perception of its relevance/irrelevance. In the above, these reactions were accommodated by pro-active work. Lene reasoned that it was important to include 'turnover time' in the description of the project's purpose, and Christina, Lene, Anders and Karen discussed what should be included in the presentation of the project in order to convince the staff of its relevance. Lene also concluded that doctors were generally not interested in 'culture', but motivated by the refinement of their core tasks, and

accordingly that a supplementary purpose was necessary in order to engage the doctors in the project and move on to the next phases of the project. In this particular project, Lene referred to Anders's first response to a purpose that only regarded 'relational coordination'; how he had been against it and how she considered this response to be indicative of the response expected from the doctors, who according to Lene generally: "*pay attention to the site of operation*". Clearly this conclusion was not only based on Anders's reaction, but also on similar encounters with the doctors of the department. These encounters painted a certain picture of the doctors' primary motivations, which enabled Lene to determine the doctors' motivation in relation to perceptions of relevance.

Karen's change in attitude to the project brought about by the reformulated purpose challenged the stability of the project, but her reaction came as a surprise. The explanation for this reaction was given immediately after Karen had expressed her change in attitude, rather than before, and hence had to be handled as the project progressed. This raises the question of why this reaction was not handled just as carefully as the doctors' perceived motivations to engage. According to Lene, the main reason for the particular problems of this project was the lack of consideration of, not only the doctors', but all the participants' possible reactions to the details of the project. However, there may be an additional explanation, rooted in the actors' concurrent affiliation with several networks, of which 'Operation joint future' was only one. The staff groups of OP and the anaesthetic department were also nodes in the network related to surgery. In the current organisation, OP was managed as part of the surgical department and had staff from the anaesthetic department coming in as 'visitors' to perform their particular tasks in the surgery.

With the invitation of the managers of the anaesthetic department to participate in 'Operation joint future', on equal terms with the managers of the surgical department and OP, they were potentially given a more powerful role, as participants in a process were the organisation of OP was to be re-defined. Ironically, the inclusion of turnover times was initially welcomed by both Karen and the other nurses, who clearly saw the project as a way to increase the awareness of their specific contributions to successful operations. However, the inclusion of the anaesthetic department on equal terms with OP was perceived as a threat, and accordingly Karen's reaction to the changed conditions of the project was unrelated to the project content that she had previously accepted. Instead, her changed motivation to participate was overshadowed by a perceived threat to her position in the hierarchy between OP and the anaesthetic department. To paraphrase Berg (Berg 1997), her attachment to 'Operation joint future' changed due to overflow from her simultaneous attachment to and position in the broader hospital organisation. In this way, the reformulated purpose not only changed the doctor's motivation to participate but also led to Karen's resistance. The project came to rely on the participation from the staff of the anaesthetic department and fanned the flame under the old issue of authority in the surgical ward. What stands out as a paradox is that the anaesthetic department initially refused to participate, because they felt threatened by the surgical department, and that Karen's attachment to the project was weakened for the exact same reason, when the anaesthetic department agreed to participate. Whereas the doctors shifted from being adverse to critical participants, Karen shifted from being a fully engaged to a sceptical participant[22].

CONCLUDING REMARKS

[22] The project progressed, and neither Karen nor the anesthetic department left 'Operation joint future'. However, as Lene explained in the quote at the beginning of this chapter, it was not considered an easy project to manage.

In this chapter, I followed the initial phase of the project 'Operation joint future' in the surgical department, with a special emphasis on the interdependencies of the project's formulated purposes and the attachment of significant actors with the project. By taking a closer look at the doctors, nurses and managers' reactions to different versions of these purposes, I identified different reactions to the project related to 1) the actors' belief/disbelief in the underlying ontologies of the project, 2) the actors' perception of the relevance/irrelevance for their own key tasks in the department or 3) the actors' feeling of a pending threat to their present position in the department. The latter reaction was not directly related to the specific purposes of 'Operation joint future', but grew out of the project's interference with existing hierarchies in the broader hospital organisation that rekindled old controversies and threatened the stability of the network related to the project. In this case, quality development interfered directly with an existing, though contested, order, by introducing a new constellation of already related actors competing for the authority to manage the ward. Thus, the development of quality work cannot be perceived as something that emerges in a vacuum. Quality development is closely related to the organisation in which it is embedded, and in the development of the individual quality development projects, these relations have to be taken into consideration.

In 'Operation joint future', the formulations *and* re-formulations of purposes were based on the quality coordinators' (and other implicated actors') predictions about these actors' motivation to engage in the project. These predictions were based on systematisations of earlier encounters with these key actors, but it was not possible to foresee every reaction. As such, the project's progression was dependent on the project managers' ability to deal with many different actors and their various (and changing) reasons to engage/dis-engage in the project. I will return to this particular aspect of the

management of quality work in chapter 10. In the forthcoming chapter, I will turn the significance of quality data as a component of quality development.

QUALITY DATA: CONSTRUCTIONS AND THEIR USE

In the previous chapter, I explored the simultaneous construction of the purpose of quality development and attachment/detachment of significant actors and groups of actors to/from the project 'Operation joint future'. Additionally, I showed how, besides connecting and disconnecting actors, this purpose also interfered with existing controversies and changing motivations that framed what could be dealt with as an object of quality improvement.

In this chapter, I will also explore how connections between actors emerged and enabled certain quality problems and quality agendas to emerge and stabilise. This time, however, I will pay particular attention to the methods and technologies of quality assessment and the practices related to the construction of quality data and the following utilisation of these, either as initiators of local reflection on quality problems or objects of external legitimisation. Earlier in this thesis (in Chapter 4), I referred to the quality coordinators' position in the department as a position without any formal authority and the challenges that this led to in the field of quality development, which inherently concern change and control. Through the focus on the practices involved in the construction and utilisation of quality data, however, it is also possible to show how this authority is enabled (though still challenged) through the quality coordinators' maintenance and management of quality data, as a repository of knowledge that needs to be maintained and managed.

DATA AS ACHIEVEMENTS

Before I turn to the analysis, I will briefly reflect upon 'data' as an object of research. These reflections were fuelled by a somewhat surprising conclusion made by one of the quality coordinators during the fieldwork. I participed in a meeting between the quality

coordinator in the medical department, Hanne, and a ward sister, and the ward sister in the acute clinic expressed concern over excess waiting times[23]. This concern caused Hanne to make the following suggestion:

> Should we spam the system with adverse events in relation to prolonged waiting time on the test results? I mean, it is a bit odd that it is the culture among the doctors and the waiting time for test results – things that you can't do anything about – that influence the waiting times in the ward

The suggestions were rejected by the ward sister, who explained that they were already in negotiations about how to solve the problem. She was not prepared to take things that far yet. However, it was clear from this situation that the provision of reports on adverse events served as a potential method to make a strong argument for a perceived problem. On our way back to Hanne's office, I asked her if they used reports on adverse events as a deliberate method to raise awareness about quality problems. This was confirmed by Hanne, and she told how a while back they had used this method deliberately to raise awareness of a shortage of pressure relief mattresses[24]. The Facility service had bought too few mattresses, but after several reports on the matter they had agreed to lease some more, and now the problem had been solved. According to Hanne, the same applied for a situation where the rubbish had not been collected frequently enough:

> The rubbish sacks piled up in one of our wards, and they split open. The nurses walked around in rubbish, and dragged it around everywhere. By reporting it as an adverse event every time we experienced this problem, we succeeded in attracting attention to the problem, and now the rubbish is collected more frequently.

Described in this way, adverse events were given a rather prominent and unquestionable role in the attempts to involve actors, in this case the facility service, in quality

[23] This empirical example is treated in more detail in the next chapter, 'A care pathway for medical infections'.
[24] Used to avoid pressure ulcers among patients that are bed bound.

development initiatives. The reason why this was a surprising statement was that I had observed in several other empirical situations how quality data was more a subject of negotiation than a firm statement of a quality problem that everyone immediately aligned with. Theoretically, this is also somewhat surprising because, as Latour reminds us, data are not something that 'are' but something that 'become'; an achievement, in relying on actions and interactions:

> "One should never speak of 'data' – what is given – but rather of sublata, that is, of 'achievements'" (Latour 1999b: 42).

Accordingly, he and other authors have shown how data are a result of intense labour, where the studied objects are rendered constant and comparable through successive stages of sampling, collection and structuring of objects that transform them into words or texts, and hence a claim of truth; a scientific fact (Latour 1999b, Latour 1987, Latour, Bastide 1986). In this process, locality, particularity, materiality, multiplicity and continuity are lost. It constitutes a reduction of the richness and details of the studied object, but also leads to the advantage of it gaining a format (for instance a text: a scientific paper, a report, a set of numbers etc.) that allows for comparability, standardisation, text, calculation, circulation and claims of relative universality (Latour 1999b:70-71).

As a continuation of Latour's points, Power (1997) argues in his work on the 'audit explosion' that notions of evidence also require acceptance from what he calls a community of observers:

> " '[A]uditability' (…), is often constructed in the interaction between auditor, auditee and official knowledge in an active process of rendering auditable" (Power 1997Ibid: 70).

From this point of view, it is not possible to make claims *a priori* as to whether a 'valuation technique' is reliable. If audits are considered effective and are widely trusted

in the network in which they are embedded, it is an effect of consensus and support of both the technique, the user of that technique (the auditor/the valuator) and the knowledge that is produced (Ibid: 78-82). Thus, it is not only the construction of data but also the construction of a consensus about techniques, routines and expertise that solidifies the usability of, for instance, audits as a means of evaluation.

I am not emphasising the above empirical example in order to shed doubt on Hanne's conclusions. I have no reason to believe that the problem was not solved through the 'spamming' with adverse events. Instead, I consider it an occasion to inquire into the translation processes that allow quality data to be used as strong arguments used to align actors around quality development processes. Consequently, in the following I will focus on the technical and situated practices related to documentation and quality assessment and the processes of translation by which clinical and administrative practices are inscribed into mobile entities, which can be displaced in time and space, saved and indexed in order to accommodate different purposes and agendas.

The first part of this chapter will deal with how images of the department's level of quality emerge from practices of documentation. The second part of the chapter explicates how quality data as mobile entities can be used to initiate reflection and negotiations on quality problems, and accordingly quality development processes. Finally, in the third part of the chapter I will explore how the quality data function as a repository that allows for the emergence of different agendas in quality development, and how this authorises the quality coordinators' position in the departments.

TRANSFORMING CLINICAL WORK INTO QUALITY DATA

Documentation is an inevitable and large component of quality work. On the one hand, documentation is related to a quest for transparency of the delivered services and can be

positioned as part of an agenda of rationalisation that emphasises accountability and performance measurement as important levers of evaluation and regulation (Wiener 2000, Power 1997). In health care quality development, this is most obvious in relation to the accreditation programmes, which in some parts of the world have developed as part of a funding and regulation agenda (Wiener 2000). As such, documentation is initiated to provide regulators and surveyors with an insight into the provided services that enable them to make regulative decisions or allocate resources.

On the other hand, the quest for documentation is also described as a means to internal quality control and development. For this purpose, documentation is described as the basis of so-called Continuous Quality Improvement (CQI), where the health care institutions themselves identify problems and solutions, and develop indicators to assess their impact (Friis 2014, Wiener 2000) using the principles of the PDSA cycle. Viewed in this way, the purpose is not the control from actors outside the hospital, but processes of adjustments in the delivered services, which are initiated and executed by the individual health care institutions. This is also the perspective put forward in the method section to DDKM (Institut for Kvalitet og Akkreditering i Sundhedsvæsenet 2013). In contrast, DDKM and accreditation were introduced into Danish health care as part of a professional and political debate about the development of a national model of quality development, rather than being part of a reorganisation of financial or regulatory systems[25] (Knudsen, Christiansen & Hansen 2008, Knudsen, Fuglholm & Kjærgaard 2004). Other types of documentation practices, such as the reporting of adverse events in the Danish patient safety system, have been introduced in a similar manner under the

[25] Although there were no formal sanctions coupled to DDKM, there have been examples of managers responsible for quality being made redundant as a consequence of less favourable accreditation results. Also, a general belief was that bad performance could tilt the balance and lead to closure of departments or hospitals in relation to regional or national re-organisation of the hospital sector (Interviews and conversations during fieldwork).

banners of self-surveillance and organizational learning (Pedersen, Mogensen 2003, Zinck Pedersen 2013).

Regardless of the underlying purpose, these quests for documentation raise the question of what methods, technologies and practices are needed for the required information to be provided. Documentation is not a new practice in health care, where for instance the use and development of patient records constitutes a resource for coordination among health care staff engaged in the same care trajectories, based on continuous documentation (Vikkelsø 2005, see for instance: Berg 1999, Berg 1996). Obviously, in the existing technology, only parts of the original state-of-affairs are retained (the clinical work and organisation), as the primary purpose these technologies is coordination in relation to the treatment and care of the individual patient. Thus, the quest for documentation as a component of quality development leads to a requirement of new types of information, new technologies and new methods tailored to conceal and provide information that can be used specifically for quality development purposes. These are treated below.

Procedures of documentation: concealing clinical practices

In an interview with the quality coordinator from the surgical department, she showed me a list entitled 'sources of data' (see

Figure 10). It was a long list, and as I learned along the way, many hours of work were spent on maintaining each of the data sources to make them available as inputs to the negotiations on quality. The original list was not only long, it also encompassed both technologies and methods to collect and contain information on different practices in the departments, and technologies and methods to transform this information into quality data. Thus, in order to gain an overview over the presented data sources I have

divided them into four groups. In the following, I will present the first three of these groups, while the forth will be presented in the next section.

Figure 10: Sources of quality data

Daily documentation of clinical work (feeding into the below, but also used for other purposes, e.g. coordination and planning).

- Patient records (paper)
- The hospital's patient administration system (e.g. electronic patient record – medication module)
- ORBIT (surgical planning system).

Documentation directly related to quality

- Logs (e.g. continuous measurement of temperatures in refrigerators and bacterial counts in the operating theatre)
- Staff and patients' reportings of adverse events
- The National Danish Survey of Patient Experiences.

Administrative documentation

- Staff records (e.g. lists of courses and competences, appraisal interviews, e-learning status and results)
- Meeting minutes from meetings of the department's quality board or working groups (nutrition group, hygiene group, patient safety group etc.).

Methods to transform documentation into quality data:

- Internal audits (DDKM)
- Audit reports on national quality indicators (e.g. complications after surgery)
- Workshops with former patients on their experiences with the department
- Root cause analysis (adverse events).

(Source: Adapted by the author from the original list of data sources, surgical department)

The first group of data sources regarded technologies and methods that allowed for the documentation of daily clinical occurrences. Among these were the patient records (both hard-copy and electronic versions), in which the staff recorded patient information and (some of) their daily actions in relation to the patient. Other data sources in this group

concerned electronic systems developed and used as technologies of planning, but also to provide information on, for instance, the duration of surgeries or the number of reoperations. It was characteristic of the majority of this type of data that they were originally developed, and still used, to serve other purposes. However, because these sources of data concealed certain clinical activities, they contained information that *could* potentially be translated into quality data.

The second group of data sources was characterised by being directly related to and developed for purposes of quality development. Accordingly, this group encompassed staff's and patient's reportings of adverse events, the department's score in patient satisfaction based on the National Danish Survey on Patient Experiences and logs containing daily documentation of specific clinical features, such as refrigerator temperatures or bacterial counts. When I performed observations during the introductory course in the surgical department and attended an operation I came to observe not only an operation but also acts of documentation performed by one of the two surgical nurses present during the operation[26]. In the beginning of the operation, this nurse entered a computer situated in the corner of the operating theatre and documented who was present in the room (including me) and time of commencement and completion of the operation. For the remaining duration of the operation, and when she was not servicing the surgical team, she documented the contents of the large cupboards containing tissues, sutures, bandages etc. for use during surgery on a checklist, which was eventually handed over to the ward sister through a hatch in the wall. This procedure, along with its relevance to quality development, was explained by the quality coordinator:

[26] The second surgical nurse assisted the doctor during the operation.

> They are constantly going through everything from top to bottom. Check, check, check! "In this cupboard: What is the expiry date [of this package]? Is it still sterile? Is the package damaged?" They create logs on all this, because we can then go back [to the logs], if there is a sudden rise in infections. Then we're able to go back and ask: "What did we not manage well enough? There were two damaged packages, were there others that we overlooked?" (…) "This flow didn't function well enough, or we didn't perform the analysis of…" [Interrupts herself in order to explain:] They make analyses of the humidity in the room, of the bacterial counts. All the time! And this is important!

Similar procedures were followed outside the operating theatre, when for instance refrigerator temperatures were registered and cleaning procedures of pre-packaged trays with blood sampling equipment were completed. This documentation was stored and, as indicated in the quote, could be used as both indications of and explanations for a drop in the quality of the service delivered.

The third group of data sources consisted of documentation from different types of administrative activities related to quality development, e.g. status on e-learning courses on, for instance, hand hygiene or evacuation plans, status on appraisal interviews and minutes from meetings of the work of various groups working with different aspects of quality development (nutrition, patient safety, hygiene etc.). The majority of data sources in this group were directly related to quality standards formulated in DDKM. However, the quality coordinator from the surgical department also stressed how she used them to keep an eye on the quality work that she had delegated, in consultation with the department managers, to smaller working groups consisting of clinical staff:

> We [the quality coordinator and department managers] appoint some working group to support (…) for instance an IT group or whatever it might be. And they have to have a mandate that we help them formulate. What tasks are they expected to solve, how often should they have meetings – so again some structure regarding who they are supposed to refer to, whom they report to and how often they need to make these

> reports. I need to know what they are doing and be able to look in their files – [explains:] they are given a file [on intranet], where they can put their meeting minutes – so I can see what they are doing.

Hence, these sources of data were indicators of quality development activities rather than potential indicators of quality. Still, they described a particular set of practices that were defined as being important to store information on, as pieces of documentation related to quality development.

When Latour talks of 'inscriptions' as '*types of transformations through which an entity becomes materialised into a sign, an archive, a document, a piece of paper, a trace*' (Latour 1999b: 306), he is referring to them as entities whose form is stable enough to become mobile. As such it can take the place of the 'original situation' (Ibid: 67) in another time and space, where it enables new translations to happen. By considering the sources of data mentioned above as devices of inscriptions that conceal particular parts of the locally performed practices in the departments, we are able to see how these practices – clinical as well as administrative – are translated into inscriptions in the form of checklists, summaries or notes regarding particular events. These inscriptions are not only mobile, they are also possible to store and accumulate. This specific property enabled comparison of practices over time and hence enabled judgments about progress or decline in quality. It is equally important, though, that the ability to store and accumulate these inscriptions also enabled the delay of further processes of translation until (or if) these were deemed necessary. I will return to this point in the final part of the chapter, and in the following I will return to the further processes of translation, in which these mobile concealments of the departments' practices became amenable to reflection and negotiation regarding quality development, or in other words how quality data emerged.

Quality data: translations through comparisons

The data in the fourth and final group of data sources presented in the quality coordinator's list (

Figure 10) were more to be considered as methods developed to transform the information provided by the former three groups of data sources into *quality data*. Despite the availability of the many types of information to be used – potentially – in quality development, they had to be transformed before they could be used. In other words, they had to undergo yet another process of translation, by which they became directly linked to a normative definition of quality, for instance in the format a quality standard. In the following, I will illustrate this process with an empirical example of an audit process.

Audit is a well-known method of quality assessment, and is also on the list provided by the quality coordinator shown in figure 10. It is characteristic of this type of quality assessment that it is based on a predefined standard that constitutes the gold standard of a particular practice. Additionally, it is a routinized and regular task that visualises quality over time, and whether changes have to be implemented. Audits can be carried out as regular surveys of a random sample of patient records according to a predefined set of questions based on quality standards. Information related to the standards under scrutiny is extracted from the patient records, and the persons who perform the audit assess whether the practices described in the patient record are in accordance with the standard. Based on the total group of patient records, a cumulative measure of compliance is made and presented as a percentage that can be compared with a defined threshold of compliance. During my observations, a threshold of 80-90% was mentioned several times as the level of compliance that the departments aimed for, because it

indicated that compliance was important but that 100% compliance would after all probably be unrealistic to achieve.

One afternoon, the quality coordinator from the medical department, Hanne, and a senior physician, Lilian, were having a meeting to carry out an audit. This audit was structured around an audit questionnaire (see Figure 11) containing a number of questions formulated in relation to the quality standards of DDKM. The audit questionnaire was prepared by the hospital department of quality, but the audits were executed locally in the departments.

Figure 11: An excerpt of an audit questionnaire, medical department

Audit, patient record			
Y=yes, N=No, O=Not relevant			Y,N,O
Hospitalization			
	Contact person (doctor), specified within 24 hours?		
	Contact person (doctor), specified within 48 hours?		
	Contact person (nurse), specified withing 24 hours?		
	Contact person (nurse), specified withing 48 hours?		
	Is the patient diagnosed with cancer, obs.cancer, heart failure, KOL, diabetes type 2?		

(Source: Audit questionnaire, medical department. Author's translation)

During the audit, Hanne held the audit questionnaire, and Lilian had the pile of patient records beside her. Hanne read the questions out loud one by one, and Lilian easily found the answers in the records. One question regarded the registration of the patients'

contact person[27], and Lilian checked the front page of the records to see if this information was documented. In all five records, the contact person was indicated by the insertion of a small card, with the initials of the responsible physician written on it, placed in a small folder on the front page. However, Hanne consistently marked that question with an 'N' (for No). Lilian protested, referring to that information already being present on the card. "*Well, that's not good enough*", Hanne explained, "*it has to be registered inside the patient record, otherwise we cannot be sure that it will be referred to in the electronic record*". After answering the questions for all the patient records, Hanne took the now completed questionnaire back to the office and entered the answers into SurveyXact (an electronic questionnaire system), from where she was able to calculate the percentage of the degree of compliance with the quality standards and generate a graphic illustration comparing this audit with previous audits. However, as early as during the audit she concluded that the front page of the patient record had to be changed, to make it more clear how information on the contact persons should be documented.

In an email to me some months later, Hanne explained how they had made slight changes to the audit procedure:

> In the latest two audits, we have entered the answers to the audit questions directly into SurveyXact. The questions look like those I have attached (Figure 11). We have 2-3 computers going, so that we are able to see the patient's electronic record (the medication module) and enter the answers straight away. We are carrying out an audit of 20 patient records for each of our management areas. We are aiming for continuity among the persons involved in the audits, i.e. persons who have a managerial or clinical

[27] The provision of a contact person among the departments' health care staff features as a formulated standard in DDKM. The contact person(s) should be responsible for assuring coherence in the treatment and care of the patient, and for informing patients and relatives about the health care service provided. (Institut for Kvalitet og Akkreditering i Sundhedsvæsenet 2013, 2.3.2)

> responsibility and are able to understand the questions and respond to errors in practice. SurveyXact generates a report straight away. But they also learn a lot by looking in the patient records, and the result is always that they talk to persons or groups immediately after the audit. Both praise and criticism is given.

One thing is the large amount of time spent on continuous documentation; another thing is what purpose this documentation were said to serve. Hanne refers to it as a something that those responsible for this particular practice could act upon. In a similar way, the quality coordinator from the surgical department explained why she considered the list of data sources as a crucial tool for quality development:

> This is the one [the list of data sources, figure 10] that I find really good, because it forms the basis of our quality work. These are the data available to us. There are various audits based on patient records, there are the results from the national survey of patient experiences that we receive every spring, and the workshops with former patients that may serve as a background for asking: "Should we do something?".

The data sources are referred to as 'the basis' of quality work, because they provide an overview over the 'available data' that can be used as indications of a quality problem. The majority of data sources were related directly to specific quality standards. Thus, quality could be shown as a percentage of compliance with these quality standards and graphical illustrations of compliance over time. On several occasions, I observed situations where the quality coordinator presented the results of, for instance, an audit to clinical managers or some of the clinical staff, because she could see a drop in compliance with a specific standard compared to the previous audit and asked them to explain or at least reflect upon what the reasons could be. The continuous documentation became representations of 'quality' and hence indications of areas in which quality development was needed, and their presence became an occasion to ask *"should we do something"*, as phrased by the quality coordinator in the above quote.

If we return to the audit event in the medical department, the purpose of noting the patients' contact persons is clearly related to the quality standard, and it is difficult to consider the registration of the patient's contact person as an activity detached from quality development. However, the documentation of contact persons cannot be considered as quality data until it has been mediated, and hence translated, by the audit procedure. When the information about the contact person appears as notes in the patient record, it can potentially be used for several purposes, for instance coordination in relation to individual patient trajectories in the clinical wards (Berg 1999). However, to become quality data, – and be used as a source of insight into quality development for the quality coordinators or managers – it had to be transformed from a particular and situated event into cumulative patterns of practices. Hence, the documentation of contact persons *became* quality data through the mediation of the audit questionnaire, and this is the point at which it can be used to pose the question: *"should we do something"*. In the audit situation described above, the audit result immediately led to the decision to try to improve the documentation practices by the altering the front page of the patient records. Similarly, in Hanne's clarification on the new audit procedure in the medical department we see how the audits provided clinical managers with a particular insight into clinical work. An insight that allowed them to assess whether the quality level was satisfying or not *and* confront clinical staff with this assessment. Accordingly, if documentation is the concealment of clinical practices, quality data are the concealment of the assessments of these same practices, which can be used to engage actors in reflection upon quality problems and solutions. In the following, I will continue along the path of quality data construction and look at how they are used to initiate reflections about quality and to persuade managers and staff to engage in and align with quality development processes.

"SHOULD WE DO SOMETHING": MOVING QUALITY DATA TO ARENAS OF REFLECTION

Earlier in this chapter, I implied that the construction of quality data through transformations of the local practices in the departments into documentation and quality was highly important, because it allowed for both spatial and temporal displacement as well as storage. Regarding the ability of displacement, I will return to yet another of Latour's conceptualisations. A predominant theme in Latour's texts is related to the way in which science is linked to society. Latour's overall point is that science cannot be disconnected from the rest of the society, and that we cannot fall back on explanations relating to 'the nature of things' when making studies inside the laboratory and sociological explanations when making studies outside. If there is a connection between science and society it is because someone has put an effort into its establishment (Latour 1999b, Latour 2005, Latour 1987). Hence, Latour introduces the concept of 'mobilisation' as a way to account for the efforts made to make 'the world' mobile: *'it is a matter of moving towards the world, making it mobile, bringing it to the site of controversy, keeping it engaged, and making it available for arguments'* (Latour 1999b: 101). The primary aim of making the world mobile is to make alliances; to make other people interested. Accordingly, the (scientific) 'facts' must be able to leave the laboratory or the original site from where they were conceived. This requires an effort, however.

Following the same argumentation, quality data did not result in a process of quality development by themselves; they had to be actively taken out of the offices of the quality coordinators to become part of an argumentation on the need for quality development. These efforts will be covered in the following.

Displacing quality data and making them available for argumentation

One afternoon Hanne was taking her round in the department wards. Hanne had promised to stop by the cardiac outpatient clinic, where a ward sister needed advice, and in the geriatric ward Hanne wanted to find the ward sister because she needed information on the status of a guideline they were working on. Hanne generally used appointments such as these as an occasion to walk through the rest of the wards as well. On this particular occasion, Hanne looked into the nurses' rooms and the ward sisters' offices in the various departments, small-talked a bit and then proceeded to the next ward. In the corridor in one of the wards, she ran into a secretary. Hanne stopped and initiated a conversation about the *rehabilitation plans* that the doctors made prior to the discharge of patients:

> Do you know anything about the rehabilitation plans? I have received a report from the municipalities on how we are performing, and it says that we are not quite managing to deliver our plans at the day of discharge, as we are required to.

The rehabilitation plans served as a tool of communication between the hospital and the municipalities about the patients' discharge from hospital to their homes. The rehabilitation plans described the hospital doctors' recommendations as to the future care of the patients, and was an indication of what services the municipalities should offer the patients in order to continue their rehabilitation at home. The hospitals (the regions) and the municipalities worked according to standards for the cooperation and distribution of tasks between the institutions within these two politically and administratively separate organisations. Here, a standard stated that the rehabilitation plans should be sent on the same day as the discharge, so that the municipalities would be informed simultaneously with the patients' transfer to their homes. The secretary answered that she was responsible for sending the rehabilitation plans as soon as the doctors had finished them:

Secretary: Normally, I send them before 2.30 pm. The rehabilitation plans that are completed after office hours I send the following morning.

Hanne: But it is only 66% of the plans that we have sent on the same day.

Secretary: But how can we do things differently. My impression was that we were doing just fine.

Hanne: You must not take this as personal criticism, but I think I have to present this problem at your [the department secretaries'] next meeting. It sounds like we'll have to ask the doctors to finish the rehabilitation plans earlier, so that you are able to send them before you leave. And of course another possibility is that we try to change the phrasing of the standard, so instead of 'Plans are sent the same day' it could read 'Plans are sent the same day or the next'.

In this situation, we see how quality data represent a shortcoming in a particular part of the clinical work, which is described by a quality standard and documented through the registrations of timely deliveries of rehabilitation plans. The quality coordinator brings this information with her – not in a physical form, but as a percentage based on the municipalities' records on the matter – and presents it to the secretary responsible. In the resulting meeting, this specific piece of information is made available for reflection and argumentation. Specifically, the secretary argues that if there is a problem this must be due to other implicated actors, and based on this Hanne reasons that it is either the practices of the doctors or the standard formulation that need to be changed. Hence, in this case the quality coordinator does not leave with a problem solved, but with identifications of new sites and actors (the secretaries meetings, the doctors and the standard) to which the quality coordinators can bring her information on a potential quality problem.

This situation resembles the audit situation described earlier in this chapter, where the patient's contact persons were incorrectly documented in the patient records. Through

the doctors' protests against Hanne's conclusion of flawed practices of documentation and Hanne's insistence on the same, an inappropriate structuring of the pre-printed fields to be filled out in the patient records was revealed. Due to this insight, Hanne was immediately able to present the problem of documentation to those responsible for the patient record format through a displacement of the audit results.

So, are these acts of displacement merely a question of moving information around? The answer is obviously no, because these conversations initiated by displacements of percentages or other types of quality data also caused shifts in attention, or in other words a translation of a percentage that indicated a problem into a more detailed understanding of where the problem was rooted. The complexities of the practice that the quality data represented were re-introduced in a process were the situated details of the practice were unfolded by the secretary in the case of the rehabilitation plans and by the doctor in the case of the contact persons. These details did not necessarily reveal concrete solutions, but they appointed new actors as responsible, and hence relevant to engage in further reflections about the solution to the specific problem that had been illuminated through the quality data. Progress was ensured, but the question, "should we do something" was still open for reflection.

Negotiating the validity of data

In the situation described above, the secretary's main argument was related to disbelief in the presented percentage. This disbelief was translated into an explanation emphasising the doctors and the responsibility for the quality standards, and hence a provisional stabilisation of the data validity. However, the dubious validity of quality data was a common objection put forward by clinical managers or staff when confronted with a potential quality problem. One type of response was related to lack of documentation: "*we may not have documented it, but I am sure we are doing it anyway*". On

other occasions, responses were related to a disbelief in the methods or technologies of documentation, and hence to the 'quality' of the quality data. Accordingly, when the question of validity remained open then the question of whether the quality data resembled a 'real' quality problem would also remain open. Hence, the question of validity was not left unresolved, but was addressed actively by both quality coordinators and , as we shall see in the following section, the staff members themselves.

Lene, the quality coordinator in the surgical department, was called to a meeting with a nurse, Kirsten, from one of the department's bed units and a consultant, Pernille, from the department of HR & quality. Kirsten, who was responsible for the implementation of the PDAs[28], had discovered some irregularities in the printouts from the system that registered the nurses' use of the PDAs. The nurses were supposed to use the PDAs as a safety precaution, to make sure that the right medication was given to the right patient. When the nurses, in the medication room, administered the medication to a given patient, they were to print a label with a barcode on that matched a barcode on the patient's wristband. When handing out the medication they were to use the PDAs to scan the barcodes on both the label and the wristband to ensure that medication was handed out to the right patient. Both prints of labels and scans of wristbands were registered in an electronic system and could be used as indications of medication administration and medication hand-out, respectively. According to the data available to Kirsten, there were more registrations of medical administrations than medication hand-outs, especially in weekends. This indicated that the nurses did not use the PDAs properly, and hence that they acted against the standards of safe medication.

Kirsten expressed surprise in the findings, because she had been under the impression that the nurses used the PDAs:

[28] Personal Data Assistant – handheld PC.

> I am actually surprised by these numbers, because when I look into the medication room the chargers where the PDAs are placed when there are not in use are usually empty. It is also my impression that the patients remind the nurses to scan their wristbands when they hand out medication and that this has helped them to remember to use them.

Kirsten only expected the nurses to be reluctant to use the PDAs in relation to PN medication (medication dosed 'as required' in contrast to fixed doses). Otherwise, she suspected the registrations to be invalid, not least because she had discovered some registrations made in weekends when the bed unit was closed[29]. Kirsten and Lene agreed that they had to find out whether the data were invalid or whether the nurses should be reminded once again to use the PDAs. Pernille explained that they could look at the time lapsed from the time of administration to the time of hand-out if they wanted to know whether the PDAs were used at the patient's bedside or in the medication room. If the timeframe was a matter of seconds, then the PDAs had evidently not left the medication room and the nurses would probably not have used it to ensure the correspondence between medication and patient. If the timeframe was longer, this was not clear proof of correct use, though it would indicate that the PDAs could have been used outside the medication room. Furthermore, Pernille asked if the weekend registrations they had discovered could have anything to do with the referrals of patients to other wards:

> If the patients are referred to another ward in weekends – and the medication is handed out from there – could it be the case that this medication was still registered in the ward that the patient came from?

Kirsten and Lene found that explanation implausible. The patients still required a great deal of medication in the days following discharge, and hence they were sent home with

[29] In the surgical department, the average duration of hospitalisation was no longer than a few days. Hence, one of the two bed units was closed in weekends, and those patients who could not be discharged were referred to the other department.

medicine that would cover the first days. So, the nurses printed labels covering several days in one go. Generally, it was Kirsten's impression that the nurses were very good at printing several labels at the time, for instance when patients were discharged from the hospital. Provided with this information, Pernille became able to provide an alternative explanation to the mismatch between registrations of administration and hand-out of medication.

> There is a fault in the system that only allows one registration of medication hand-outs even though it covers the administration of several doses of medication. I think this is why there is a decrease in the registration of hand-outs in weekends or other days where a large number of patients are discharged. I recommend that you look at these registrations per month instead of per week, because this would even out the fluctuations that you see over a week. Because of these failures in the registration system, you should not aim for 100% compliance, 60% would be good enough. Try to keep an eye on the 'discharge days' and whether it is on these days you find these fluctuations. Otherwise, try to focus on the areas where you suspect that the PDAs are not being used, for instance in relation to PN medication.

When Pernille left the meeting, Lene and Kirsten continued discussing how to interpret and explain the PDA registrations. Despite the fact that they ranked higher in the use of PDA than other departments, they were not satisfied. Kirsten said that she did not trust the data and suggested that they went through the registrations and looked at the time lapse between administration and hand-out of medication, as Pernille had suggested. They wanted to create a faithful representation of how the nurses used the PDA, and additionally came up with the idea that they should urge the nurses to make a manual registration when they made an administration of medication covering several days. Lene would make a large poster with the headline "Administration of several doses", and hang it up in the medication room, so that the nurses could leave a mark every time they administered and handed out several doses of medication to the patients. In that way,

they would try to create an overview of the number of periodical administrations and use this as a supplement to the other electronic registrations.

Once again, we see a situation where a set of data is brought into a site of reflection and argumentation. This time, the main objection is 'validity'; what practices are concealed in the data, how are they registered and how should the data be interpreted? Still, there is an underlying theme related to the compliance with a patient safety procedure: the correct use of PDAs. If the data are to be considered valid, then there is a quality problem that cannot be overlooked, according to both Lene and Kirsten. If the data are invalid then they can rest their case. Hence, Lene and Kirsten engage in a conversation with the system that registers the use of PDAs and the quality consultant as an expert on this technology. Once again, we are also witnessing a process of translation that reintroduce the complexity of the clinical situation and in which quality data are transformed into relatively detailed descriptions of both the clinical practices and the functionality of the system registering the use of PDAs. There are only vague indications of whether it is a technical failure or the nurses' neglect of a patient safety procedure that leads to the unsatisfying results, so Lene and Kirsten are left with the choice of trusting the explanation provided by Pernille or continuing the exploration of the PDA registration as proxy for safe medication practices. They choose the latter and take the question of data validity and/or quality problems into the medication room, in order to produce a new type of data.

The findings in this empirical example, as well as the example from the previous section, indicate a more blurred process of data utilisation than what is described in, for instance, DDKM with reference to the PDSA cycle. Here, monitoring, assessment and acts of quality improvement progress in a linear movement, where quality data provide clear representations of quality problems. What we see in the empirical examples

provided here, in contrast, is an iterative process, in which the simplified quality data are mobilised, displaced, reflected upon and retranslated into more detailed representations of clinical work. In this process, new displacements, reflections and translations occur, until a resolution is achieved. This achievement is based on intensive labour from the quality coordinator and other implicated actors, and is not given by the availability of quality data. The quality data represent an occasion to raise questions about the department's quality, but they are not stable and 'black boxed' facts. On the contrary, they are questioned, challenged and discarded, and this leads to additional work that can push the departments toward a decision as to whether or not to initiate quality improvements.

I will now leave the work related to the construction and utilisation of individual quality data as a means to align managers and staff to quality development processes, and take a look at the work related to quality data as part of the quest for external legitimisation. I will do this by approaching the potential of quality data to accumulate into a repository that enables different quality agendas to exist concurrently. Here I will also argue that this repository positions the quality coordinators as an authority in the departments.

A REPOSITORY OF QUALITY DATA

In the above, both quality coordinators stated a clear optimism in relation to the ability to use the sources of data as a starting point for quality development inside the departments. However, quality data also served the purpose of external legitimisation, not least in relation to DDKM and the four-year cycle of accreditation. Hence, quality data implicitly provided a connection to the wider public through their ability to show the levels of quality provided by the quality standards, and materialised through the continuous audits. However, this external connection was only potential in the sense that no one was systematically controlling the entire bundle of quality data. As the

quality coordinator from the surgical department explained above, there was a resonance in building up a 'library' consisting of all sorts of quality data that could easily be extracted if needed. Accordingly the results of every data assessment was saved on the intranet or otherwise filed in the hospital's documentation systems:

> There is always something coming up (…) the managers keep rushing in and requiring something or other. However, in my experience they can ask me about anything. We will always be able to find something in the files, with the reports we have. We have audit reports and other types of reports on almost anything, and we can always access those.

These files made up a dynamic reservoir where data were continuously entered and extracted to serve all sorts of purposes. As such, we may also see quality data as more than individual objects that can be brought into an arena of reflection, argumentation or negotiation in a specific time and place as we saw it above. Star & Griesemer define a repository as:

> (…) ordered 'piles' of objects which are indexed in a standardised fashion. Repositories are built to deal with problems of heterogeneity caused by differences in the unit of analysis. An example of a repository is a library or a museum. It has the advantage of modularity. People from different worlds can use or borrow from the 'pile' for their own purposes without having directly to negotiate differences in purposes (Star, Griesemer 1989: 410).

According to this definition, we might also see the files of quality data as a boundary object in the form of a repository that enables the mutual existence of different quality agendas. In the beginning of this chapter, I described how quality data emerged from numerous sources of documentation in the hospital, and how they became quality data through successive stages of translation. However, as described by Star & Griesemer a repository must also enable actors from different worlds to borrow from the pile of objects for various reasons without having to negotiate about the various utilisations of

these objects. In the following, I will explore this feature of a repository and show how the accumulated quality data enable different quality processes to occur.

Managing a repository and accommodating several agendas

Documentation overload is an important theme in the debate related to quality development in Danish health care. Often, the causality between documentation practices and quality are questioned, and critics have raised the argument that documentation is taking time from patient care and disturbing rather than improving quality (Holm-Petersen, Wadmann & Vejen Andersen 2015). Similar reflections on 'documentation overload' were voiced by the quality coordinators, especially in relation to DDKM, which demanded that the hospital and departments provide and reflect upon a set of predefined quality data. According to the quality coordinator from the surgical department, these demands needed to be balanced against the time and energy used by the health care staff when producing and reflecting upon these data:

> We carry out audits all the time: Do the patients have a contact person, and do the physicians carry out preliminary assessments of our patients, and are we documenting CAVE[30]? It is a recurrent thing, and we have to do it. You know, it is an external requirement that we have to carry out these audits, but if our percentage of compliance is OK, then I don't understand why we have to continue to take these measures. (…) Maybe the politicians will become more lenient regarding in time. So when you are able to prove that this is under control in three or four audits, then we can focus on something else. It's a question of not misusing the staff's time. It does not make sense to work with something where you can see everything is alright. (…) For instance, a contact person from the clinical staff is really relevant, and we know that it means something for the patients to have a continuous contact. However, we are able to see, both in the

[30] CAVE is information about patient conditions that the physicians needs to be attentive to; typically allergies towards certain medications.

> LUP[31] and in our own audits, that in our department we are doing just fine. This makes me think: why use so many resources on that? Well, it's easy in the trajectories in this department: we only have one pre-op examination, and it is the same doctor who performs both the pre-op examination and the actual operation. Then we have one contact nurse at the pre-op examination seminar and one in the bed unit.

This quote touches upon an interesting aspect of the quality coordinators work. This work concerned striking a balance between external requirements and internal distribution of resources. From the quote above, it can be extrapolated that this balance has to be found in-between the following:

a) The mandatory national schemes of documentation and construction of quality data
b) Staff's time (and patience) as a limited resource that needs to be utilised with care
c) Local conditions in the departments that made the mandatory quality data more or less relevant.

As I will exemplify in the following, one way of approaching this balancing act was to engage with the repository of quality data as a resource serving different purposes in quality development. As we saw in the previous sections in this chapter, some quality data could be used to initiate reflection and negotiation regarding quality problems, and these data were presented to staff and managers in the departments. Others types of data were only used for purposes of external legitimisation. These quality data should be available, but not necessarily used to encourage reflection within the departments. They could, so to speak, remain in the quality coordinators' offices.

This indexing of quality data, based on the purpose that they were intended to serve, was also mirrored in the choice of who should be engaged in the construction of these data. As the quality coordinator argues above; depending on the result from former audits and

[31] Danish National Survey of Patient Experiences.

the relevance of certain standards according to particular organizational conditions in the department, she could choose to make audits with or without involving clinical staff:

> Lene: I think the scope of flexibility is too limited – it leaves us too little freedom to decide for ourselves how we use our resources, and then the consequence is that I do these audits because I can see that it doesn't make sense for the clinical staff. In a way, it is misleading and a big mistake for me to do the audit myself. It is important that they [the clinical staff] are part of this process, so they can see for themselves how bad things are. But because it is required by the region [referring to the audit on contact persons] I'm the one who does it. Then I send out the results, and people will say "Oh, we are doing so well". And we are.
>
> Marie: But is it a potential source of error that you do the audits alone?
>
> Lene: Yes, in a way. They should be …. The [audits on] referrals for instance should be made by a doctor: is the information filled in correctly, are we receiving the correct data, so we are not accepting patients that should have been treated by their general practitioner. We have to avoid sending patients into the system, who are not having the right preconditions [for surgery]. Or if you are making audits on the discharge summary: do the general practitioners receive the information they need? In this case, it is important to have a doctor to go through with the audit. (…) Here they are always participating, because here we know that we have our weaknesses.

According to this quote, there is an additional process of translation that we need to take into account in our understanding of how quality data are utilised in the departments. In the above quote, the quality coordinator tells of how she not only files the quality data, but also groups or indexes them into at least two groups. Some quality data were important and relevant for the department's internal processes of improvement – for instance because they had a relation to those tasks in the departments that she defined as 'weaknesses'. Here, it was relevant to engage the staff members in a process of reflection on the need for quality development. Other quality

data were perceived as irrelevant and met with a desire to ignore them as such. However, their presence and hence the construction of these quality data were unavoidable, with reference to the schemes of documentation provided by, for instance, DDKM. Thus, ignorance was more a desire than a real choice, and consequently these quality data were defined as quality data serving a purpose of potential, external legitimisation. These quality data were not necessarily used in the department's quality development processes, but could be stored until an occasion arose for them to be activated and used. This occasion could be the four annual accreditation surveys of DDKM, where these quality data would become part of the larger picture of the hospital's and the department's overall quality level or the initiation of a root cause analysis as a result of a report on an adverse event. Nevertheless, the specific set of quality data did not in itself contain a reason to be moved into the departments or – just as importantly – to engage the clinical staff in either the construction of or the reflections upon it.

In this way, the quality coordinators' position as key managers of this repository of quality data provided them with a specific ability to decide who and what should be withheld from reflections upon quality. This ability became visible through the indexing of quality data as relevant to either an internal or external audience. Further this ability allowed them to either include or exclude the staff and managers in relation to the reflections upon available quality data, and ultimately the decisions as to whether quality development should be initiated. This weakened the staff and managers' possibility of responding to the quality data and can be seen as an example of how quality development has been removed from the clinicians and the clinical realities, as was problematised in the criticism of the existing organisation of quality in the Danish health care sector, referred to in Chapter 2. The quality coordinator refers to this problem in the above quote and calls it a 'mistake' and potentially 'misleading'. On the other hand, she emphasised the importance of both presenting and withholding data for

managers and staffs in order to avoid misusing of the staff's time (and hence avoid exhausting them by exposing them to everything) *and* at the same time preserve the alignment between the department and the national and regional systems of quality development and their requirements of transparency.

Concluding remarks

In this chapter, I wanted to explore the work related to the construction and utilisation of quality data, as well as their properties as enablers of internal and external processes of authority. By analysing the construction and utilisation of quality data as successive stages of translation, I have illuminated the detailed work performed in order to bring quality data to life as quality problems with which staff and managers align as objects of quality development. The use of quality data serves as an occasion to pose questions about quality levels in the hospital departments, but this does not automatically lead to decisions as to whether and how quality development should be initiated. Quality data are produced and stored away from the daily clinical and administrative practices of the departments, but through displacement they are made available for reflection and negotiation. Additionally, the validity of data is contested, which necessitates further quality data to be produced before they become an occasion for initiating quality improvements.

The amount of quality data was enormous, but not every piece of data was utilised for quality development purposes. For quality data to acquire this status, a connection to the staff and managers had to be made. Some quality data were not directly involved in any such negotiation, but still they were not passive entities. The requirement of being able to display quality to external stakeholders and the legitimising element of quality development motivated the departments to uphold a considerable pool of quality data, which could be drawn from this pool and presented when needed. Hence, there were

more quality data than the departments were able or willing to utilise for internal quality development purposes. Accordingly, the quality coordinators divided the quality data into data of direct relevance to the departments' efforts of quality development and data primarily serving the purpose of external legitimisation. In this chapter, I claim that the quality coordinators possess a privileged role in this process of prioritisation, because they participate actively in both the construction, filing and indexing of these data.

'A CARE PATHWAY FOR MEDICAL INFECTIONS'[32]

In this third and final analysis, I will turn to a quality development project that was initiated during my observations in the medical department, while I was following a process of a care pathway description for medical infections. This process stood out as interesting as an example of how quality development was performed, because it was a telling example of the quality coordinators' abilities as 'coordinators' or 'articulation workers' in a situation where various understandings of how the coordination had failed in this specific care pathway. Furthermore, this project revealed a paradoxical situation of simultaneous ordering and disordering caused by the interrelation of the care pathway process and the existing clinical work in the department.

The analysis is structured as follows. The first part is concerned with the negotiation of problems and solution in the delineated care pathway and how agreement regarding the 'key problem' was achieved across organizational units and professional groupings. This part of the analysis shares similarities with the process described in Chapter 8, though in this chapter the quality coordinators' work is given more space. The second part of this chapter is concerned with the situation of potential disorder that appeared as a consequence of care patheway process.

CARE PATHWAY DESCRIPTIONS – A TOOL IN QUALITY DEVELOPMENT

A care pathway is described as a multidisciplinary management tool that both maps key activities in a health care process and serves as a record of care that can be used as information for operational and strategic management. It was developed as a tool for rationalisation and resource utilisation, but is now used in health care institutions all over the world to address a number of health care agendas, including quality

[32] Parts of this chapter will be published in (Madsen Forthcoming).

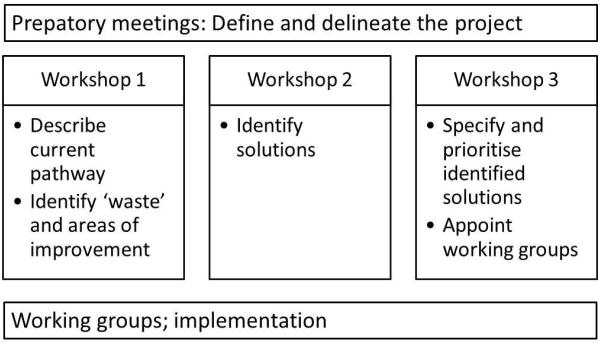
development (Pinder et al., 2005; Allen, 2009). In Danish health care, the care pathways have also become a prominent tool of quality development and are specifically inscribed into DDKM through a standard stating that the hospitals must develop descriptions of the care provided to their patients (Institut for Kvalitet og Akkreditering i Sundhedsvæsenet 2013: 172). In the hospital, this standard was supported by the hospital's quality policy describing a goal of 80% of the hospitals care pathways before 2015. Specifically, this meant that each department had to describe a minimum of two care pathways each year, and in the medical department the care pathway for medical infections had been chosen.

In order to support these processes, the Department of HR & quality had developed a unique framework guiding the departments through rather structured courses defined by a template in three steps (See Figure **12**):

1. A phase of preparation, where the purpose of the project was defined and the relevant actors to participate in the following phases were assigned
2. Three workshops, each with their own purpose
3. A final phase, in which the ideas formulated in the workshops were processed in smaller working groups, in order to implement the ideas.

In the workshops, the current care pathway should be described and provide insights into the major obstacles of the present work, as well as descriptions of a future, more optimum care pathway informed by the participation of representatives from each of the wards and departments that were part of the care pathway, as well as representatives from the various groups of staff.

Figure 12: The template for care pathway description



(Source: adapted by the author based on the hospital's material on the care pathway processes)

The framework was presented to me (by a consultant from the department of HR & quality) as inspired by LEAN and a concept of inter-professional collaboration and learning (IPLS)[33]. Accordingly, it was a framework that paid more attention to the patients and health professionals' notions of 'quality' and 'the good care pathway', and less attention to 'waste' (e.g. waiting time or unused technology) compared to classic LEAN processes.

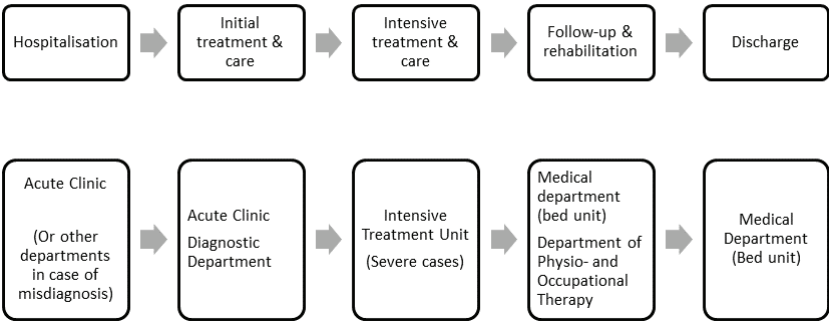
The care pathway for medical infections

Before I proceed with the events of the project, I will provide a brief and overall description of what happened when a patient was admitted to the hospital with a medical infection. Figure 12 is an illustration of the key steps in the care pathway for patients with medical infections and wards and departments providing care for patients

[33] E.g. (Vyt 2008, Oandason, Reeves 2005).

with medical infections. This figure is based on the project material and the project participants' own descriptions during the field work, as is the following description.

Figure 13: Illustration of the care pathway for medical infections



(Source: Adapted by the author from the original project description'Care pathway for medical infections')

Medical infections cover diseases such as pneumonia, blood poisoning (sepsis) and meningitis. Patients that were referred to the hospital for possible medical infections entered the hospital via the acute clinic, where doctors (often younger doctors in a residency programme) performed a brief examination of the patient in order to decide which diagnostic tests should be performed. The ordering of diagnostic tests was communicated to the diagnostic department using the digital system LABKA, and this was also the site of communication when test results were returned to the acute clinic from the diagnostic department. When the test results were available, the doctor was able to make a preliminary diagnosis and refer the patient a bed unit in one of the hospital's specialised departments. In the case of a medical infection, this would be the bed section for acute examination and internal medicine (medical department) or in

severe cases the intensive care unit (anaesthetic department). Here, the patients would receive treatment, care and training from the hospitals physiotherapists or occupational therapists until their recovery.

In the first draft of the project description, the illness trajectory of medical infections was described as *complicated, an area of high risk* and in *need of restructuring.* During the meetings and workshops related to this project, several challenges were pointed out, and among these was the difficulty of coordination caused by the many organizational units involved in the care pathway, as well as the difficulty of making the right diagnosis. This made medical infections difficult cases to work with in terms of creating a coherent flow in treatment and care, especially in the first hours of hospitalisation. Furthermore, medical infections were difficult to diagnose because of unclear symptoms that were often mistakably believed to be related to other diseases. However, behind these strong arguments for paying attention to the specific care pathway of medical infection, different versions of 'the real' problem lay hidden.

NEGOTIATING THE "REAL" PROBLEM(S)

The observations related to this specific project began when I attended an initial meeting regarding the formulation of the project description. Here, Hanne presented statistics that placed medical infections among the most common causes of hospitalisation in the medical department. Present at this meeting were a radiographer, two nurses and a doctor, all of whom echoed Hanne and emphasised the importance of being attentive to medical infections. The doctor, Susanne, believed that the available statistics underestimated the prevalence of medical infections, as patients were often hospitalised for something that later turned out to be an infection. This and other similar meetings revealed that the choice of medical infections as a subject of development was generally supported by both managers and staff. This support was based on statistical evidence

showing a high prevalence of patients either suffering or dying from medical infections. Thus, the choice of medical infections required little or no work from Hanne. However, in contrast to this apparent consensus in the initial phase of the process, later events revealed that the specific content of '*the complicated nature of the care pathway*' and '*the need for restructuring*' were much more heterogeneously understood. The exact areas in which to pursue improvements were still open to negotiation.

The pressure ulcer screenings

Concurrently with the preparations of the project on medical infections, another process of quality development was pending in the hospital. This process became constitutive for the further course of the work in the care pathway for medical infections. As part of a national campaign on patient safety, the hospital was preoccupied with the introduction of systematic screening of pressure ulcers. International data had revealed a surprisingly large amount of undiscovered pressure ulcers among hospitalised patients, so the hospital initiated new standards for pressure ulcer screenings requiring all patients hospitalised for six hours or longer to be screened. How this became important for the project on medical infections is explained in the following.

A few days after the initial project meeting, Hanne met with the ward sister, Trine, from the acute clinic to discuss an entirely different matter. During this conversation, Trine brought up the problem of long waiting times in the acute clinic, which necessitated the pressure ulcer screenings and thus added to an already constrained time schedule:

> (…) it isn't uncommon for us to have to wait several hours for the blood test results […]. It's probably difficult to avoid such situations [where the screening has to be performed in the acute clinic].
>
> (…)

> It's a challenge that the younger doctors want to have all the test results before they refer the patients to the bed sections. They're afraid of [name of a senior doctor], and want to have all the results to justify their referral.

They then discussed different possible solutions to the problem of long waiting times, but without coming to any specific conclusion. The next day, I met Hanne in her office. She was angry because the hospital's unit of HR & Quality had circulated an email to every ward the same morning, stating that *every* patient hospitalised for longer than six hours had to be screened for pressure ulcers before a date in the near future. She had already discussed this with the head nurse in the acute clinic, and her conclusion was clear:

> This will be disastrous for the acute clinic, because it will add to an already busy procedure. In the acute clinic, they perform a lot of vital tests, and they do not have time to do much more. Screening for pressure ulcers is extremely time-consuming. The patient needs to be undressed and examined very thoroughly. One fifth of the patients in the acute clinic already spend too much time in the ward because they have to wait for the blood test results and doctors' decisions.

She explained that she had decided that the coming process of describing the care pathway for medical infections should pay special attention to the procedures of blood testing and analysis. This would imply an attention to the interrelation of the work performed by the diagnostic department and the medical department, as a way to reduce the waiting times that would lead to the stipulated screenings for pressure ulcers in the acute clinic.

As the process proceeded and more participants representing other units involved in the trajectory of medical infections were included in the project, further nuances regarding the content of suboptimal coordination appeared. The other participants in the project drew attention to various types of work included in the course of treatment for medical

infections – often through informal conversations with Hanne. For instance, Hanne confronted Susanne with the junior doctors' indecisiveness, which according to Trine's earlier statement came out of fear of the senior doctors' criticism. This accusation was refuted as "nonsense" by Susanne, who instead drew attention to a general lack of attentiveness among the junior doctors to the existing clinical guidelines for the treatment of medical infections. She especially highlighted *sepsis* as an area where very clear criteria for both the diagnosis and treatment were formulated, and she persistently argued that an important part of the new and improved care pathway should include these criteria, and that they should be known by health care professionals at every step in the care pathway. Susanne argued that this would eliminate every doubt among the junior doctors about the right course of action, and consequently eliminate their hesitant behaviour when making decisions.

Moreover, she argued that the dynamics between the junior and senior doctors were less problematic within the medical department than between the junior doctors of the medical department and the senior doctors of the intensive care unit:

> I [as a senior doctor] know that it helps to insist that this patient needs intensive care and it might even help to get really angry. It's much easier to reject a junior doctor, but it isn't right. Decisions of who should receive intensive care should not be based on who is able to insist the most.

In a similar way, the participants from the diagnostic department pointed back to the medical department when Hanne raised criticism of their lengthy response times, as described by Trine. A radiographer from the diagnostic department explained how they were often unable to move on with the diagnostic tests because of inaccurate referrals (e.g. to MR or CT scans); mislabelled blood tests (e.g. without the proper patient identification) or blood samples performed incorrectly (e.g. too small an amount of

blood). The diagnostic department's response to these faulty referrals was a rejection marked in LABKA. However, the doctors in the medical department did not encounter this system systematically and therefore missed the information on the rejected referrals. As Hanne phrased it: *"Then everybody is waiting, but what are they actually waiting for?"*

These three positions, described in the above, on the underlying problem in relation to the care pathway for medical infection revealed different suggestions as to which parts of the care pathway needed to be changed or optimised and, on the same note, whom (or what) needed to change their way of working. The alignment of actors in the project and the construction of a consensus regarding which problems to pursue, obviously required negotiations. These negotiations were to a certain extent framed by the hospital's general outline of care pathway processes but, as will be discussed in the following, Hanne also participated in the framing of this negotiation.

Constructing meetings between disparate views

Figure 12 portrays the care pathway as a linear sequence of work provided by actors from at least four departments in the hospital, and, as the case unfolds, we learn that it requires a major coordinative effort to create coherence between the different types of work performed with and around the patients in the acute clinic, the diagnostic department and the anaesthetic department, respectively. This analysis illustrated that the construction of a coherent image of the causes of sub-optimality in this care pathway relied equally on disparate efforts combined. The finding of a general support of the care pathway project and the simultaneous disagreement about the detailed content resemble what Allen (Allen 2009) refers to as a 'fuzzy periphery' around a 'zone of agreement'. The care pathway process was initiated with the support of everyone who participated in the care pathway, and who stated an interest in the care pathway for medical infections and how it could be improved – or, in other words, how articulation work could be

supported within the given care pathway. However, they also expressed various opinions on the key causes of sub-optimality, and the unfolding of these detailed accounts of the anticipated problems and the coherence among them required another kind of articulation work. This articulation work was specifically related to the construction of meetings between parties with different opinions.

Within the framework of the care pathway project, the involved actors were expected to align in order to draw a new and improved care pathway compared to the existing one. These actors were not unrelated or unfamiliar with each other's work, as they were all part of the same *existing* care pathway. However, the care pathway process constituted a *new* network were actors were to align around the description of a *new* and *improved* care pathway that was different from the *existing* network, in which the actors aligned around the care for real patients. Additionally, this new network had a time constraint and evaporated as soon as the care project ended. Each actor that was included in the care pathway process represented an organizational unit or a professional group, and they were all asked to contribute with their understanding of the problem. These actors then delivered resources to the project in terms of their particular "insight" into the processes that needed to be changed or improved. Each involved actor presented their own point of view, formulated from within the scope of their own position in the care pathway. Some of these points of view were juxtaposed in the workshops, but as the situation with the ward sister from the acute clinic revealed, they were also invoked in unexpected situations far from the formal events of the care pathway process. Hence, a specific challenge was to bring these disparate views together in order to confront them and create a coherent picture of the most pertinent problems to address in the future.

Both quality coordinators in this study problematized both their organizational and their physical positioning in the hospital. Their job description defines them as offering a

service function to the managers of the departments, and hence they were not directly affiliated to any clinical ward. Additionally, their offices were placed next to the managers' offices, away from the wards, and this inspired Lene (from the surgical department) to use the metaphor of being placed on top of an iceberg, implying that there was something underneath her that she could not see. In terms of this specific empirical case, I would suggest that the loose coupling between quality coordinators and the clinical wards was not only a disadvantage, but also a virtue that enabled the progression of the project. As opposed to the staff who contributed with information on the problem of coherence framed by their specialised, but rather narrow, focus, Hanne was able to move between the different organizational units, tasks and staff that constituted the different parts of the care pathway. In that way, one part of her work consisted in *collecting* information on the different perspectives on what caused suboptimal coherence; and another part of her work, that of supporting the necessary negotiations within the care pathway process, consisted in making *connections* between these different pieces of information provided by the participants. Hanne was in possession of cumulative information about, for instance, time constraints or miscommunication. This information enabled her to arrive upon an alternative version of where in the care pathway efforts should be made to optimise it.

Neither Hanne's insights nor her choice of focus and priority came from nowhere. They were based on juxtapositions of encounters with the participants in the care pathway project. In these encounters, the participants revealed details about a given situation, and in that respect Hanne's capability as an articulation worker, and thus as a support for the progression of the care pathway process, relied on her ability to interact with those who could provide her with this detailed information. These interactions constituted an important source of information, but they could never provide the "big picture". However, because Hanne was not restricted or bound to a particular space in

the department or to a specific clinical task, she was able to interact across professional and organizational boundaries and get a picture that was different from that of each of the other participants'. Additionally, by juxtaposing the involved actors' perspectives with each other, she facilitated a negotiation which did not necessarily require the actors to meet in person. Therefore, the limitations caused by Hanne's positioning in the hospital organisation were counteracted by her ability to move between actors and the perspectives that they provided.

Between order and disorder

In the first part of this analysis, I have described the process as a delineated process aiming for its own course of coherence, both in relation to the care pathway it was subjected to improve and the alignment of participating actors in relation to the project. However, I have also described how this process was disturbed by the sudden requirement of pressure ulcer screening in the hospital. Even though the care pathway project was time-limited it was, during its short course of life, also susceptible to disturbances arising from its intersection with varying attempts to improve quality in the department.

Additionally, in the intersections the care pathway project became a potential source of disorder in other networks, in spite of the project's intentions of contributing to increased coherence and coordination. First of all, the care pathway project claimed the time of the staffs that was summoned to represent the different parts of the care pathway in the three workshops. These persons were also (and first and foremost) essential participants in the clinical work in their respective wards. Hence, their designated role as representatives of the wards in the care pathway project, defined as an important area of development, was in competition with their clinical role in the wards, and especially in the emergency ward, which was defined as being 'under pressure'. This tension was

related to the question of how the staff's time was best spent, and from the beginning of this project the double use of resources was in focus. This was for instance expressed in relation to the efforts made to guarantee the participation of Susanne (the doctor) participation. She was defined as *the* expert on medical infections and was considered an inevitable member of the workshops. However, she was also regarded as an important and inevitable part of the work in her clinical department and all meetings, and accordingly also workshops, were planned on her so-called 'office days' (days with no patient appointments) in order to include her in the project, but without affecting the service level of her clinical duties. However, as the care pathway project proceeded, other instances of intersections occurred that risked disturbing rather than improving the quality level. In the following, I will pursue this paradox by following the events following from the introduction of the *sepsis guideline* into the care pathway for medical infections.

The sepsis guideline

In the final workshop – the workshop of specified solutions (see Figure 12) – the clinical guideline for sepsis (Dansk Selskab for Patientsikkerhed 2013) became a theme of debate among the participating staff. This guideline (see Figure 14) had been mentioned continuously by the senior physician, who had mentioned it on several occasions as a possible solution to many of the problems revealed during the care pathway process. At this the final workshop, this ongoing debate culminated.

Figure 14: The sepsis guideline

a) Sepsis criteria

Criteria	Condition
A minimum of two of the following clinical signs (SIRS criteria): 1. Body temperature > 38.3 °C or <36 °C 2. Heart rate > 90 beats/minute 3. Respiratory rate > 20 or PACO2 < 4.3 kPa 4. Leucocytes > 12 or < 4 X 10^9/l or > 10% immature PMN	Sepsis
Concomitant hypotension, hypoperfusion or organic dysfunctions	Severe sepsis
Concomitant hypotension, hypoperfusion or organic dysfunctions despite adequate volume substitution	Septic chock

b) Sepsis resuscitation bundle

The sepsis resuscitation bundle – early identification of sepsis	
1. Measurement of s-lactate 2. Relevant cultivation/examinations before initiation of treatment with antibiotics	Diagnostic step
3. Oxygen supplementation 4. Intravenous fluid resuscitation 5. Active decision related to treatment of infection (e.g. antibiotics, surgery) after local guidelines 6. Follow up on treatment with antibiotics in order to adjust or discontinue the treatment no later than 48 hours from initiation of treatment.	Treatment

c) Time frames

Condition	Activity	Time frame
If a minimum of two of the SIRS criteria:	Diagnosis: Confirm or disconfirm suspicion of infection	< 3 hours
Confirmation or suspicion of infection	Treatment: Complete the elements of the sepsis. Sepsis resuscitation bundle, here the central step is timely initiation of the antibiotic treatment	< 1 hour from the time of diagnosis
Treatment with antibiotics	Control and follow up:	≤ 48 hours from initiation of treatment

(Source: adapted by the author from the sepsis guideline (Dansk Selskab for Patientsikkerhed 2013)

The guideline was based on medical research stating that it was vital for the patients' survival that sepsis be treated within six hours of hospitalisation. Accordingly, the guideline contained listings over the necessary actions relating to both diagnosis and treatment, combined with vital time intervals within which each of the different actions should be taken. The guideline also included a checklist for documentation of the actions taken in the emergency room. The purpose of this checklist was both to assess quality as defined in the guideline and provide information on the details of the initial and acute care provided in the emergency room to the receiving bed units or the intensive care unit.

In this workshop, Hanne started out with a brief introduction to the workshop agenda. After this, she asked the participants to prioritise among the many ideas of how to improve the care pathway that was suggested during the first and second workshops. Following this short exercise, she asked the participants to reflect explicitly on the guideline as a possible way to improve the care pathway. A nurse, Majbritt, who represented the acute clinic in the work-shop, responded that she was not convinced that yet another checklist would be fruitful and explained what a typical situation would be when an emergency patient was admitted:

> Everybody is preoccupied with the most crucial tasks of acute care, and the decisions are made from moment to moment. The physician will make a decision about what medication the patient needs, based on the available vital signs of the patient. He or she will just say it out loud to the nurses, who immediately prepare the medications. Then, when the patient is stabilised the physician typically follows the patient to one of the bed units in order to make a proper transfer. In this type of situation, there is no time to consult or fill out checklists, and even when the patient is stabilised and the situation is less acute there are so many other requirements of documentation we have to prioritise.

Majbritt looked at the checklist and noted that, in her opinion there was nothing wrong with it, but that it would add to and overlap with an already existing and large amount of documentation practices. This led to an overall discussion of whether they could replace some of the existing checklists with this one, but Hanne reminded them that many of the documentation forms were mandatory and a common resource in the region. She noted that it was very unlikely that they would be exempted from these schemes. Instead she suggested that they initiated a discussion of how to make the guideline available and adaptable for the particular pace and structure of the work in the acute clinic:

> Hanne: How about making a pocket-sized and laminated version of the guideline you can put in your coat pockets. Would that be more useful?
>
> Susanne: Our pockets are already stuffed with similar cards; it would probably get lost among all the others.
>
> Hanne: Would it then be better to make laminated posters with the guideline and hang these posters on the walls in every emergency room?
>
> Majbritt: This is a much more feasible suggestion. Additionally, we could buy large stopwatches that we can start the moment a patient is admitted, in order to support the compliance with the time frames provided by the guideline.

In the guideline materials, as well as Susanne's promotions of the guideline as part of the care pathway process, the use of SIRS criteria and the sepsis resuscitation bundle were described as a matter of life and death. Hence, it was difficult to argue against the guideline as a crucial part of the care pathway. However, if the guideline and its components of forms for documentation, timetables etc. became implemented as a part of the clinical work in acute clinic it would inevitably disturb the routines in the acute clinic, where work was carried under time constraints and based on quick decisions. In

this way, the care pathway for medical infections was embedded in the tapestry of entanglements, and despite the intentions of (and in this case the apparent success in) defining and solving dysfunctional coordination in a delineated part of clinical work it also threatened to disturb it. As Berg (Berg 1997) describes it: each of the actors in a network easily overflows its definition, because the actors constitute nodes in other networks. The guideline and the implicated actors could not ignore the existence of the sepsis guideline, but they could not ignore the drift that it could potentially cause in the acute clinic either. Accordingly, the introduction of the sepsis guideline was by no means uncomplicated, because the premises of this introduction was a prioritisation between both new and existing, but potentially equally important and hence unavoidable, practices.

In the above conversation, it was suggested that the form of the guideline material could be changed from a list of vital actions and time frames including a checklist, to a list in the form of a pocket card and finally to a list in the form of a poster that, in combination with stopwatches, could increase the staff's attention to the vital signs of sepsis and the importance of the time factor. In that way, the part of the guideline that was related to documentation and quality assessment was separated from the care pathway, and what remained was a poster informing the health professionals in the emergency rooms about vital medical signs and the vital time frames in the first hours of care. In other words, the guideline was transformed from a 'device of assessment *and* hand over' to a 'device of memory support' and became a much less invasive structuring element in the acute clinic. In this way, the transformation of the newly connected actor (in this case the guideline) resembled a solution to the problem that arose around the care pathway process and the inherent attempts to bring about change.

Concluding remarks

In this analysis, I have paid particular attention to the quality coordinators' role in the process of describing a care pathway for medical infections in the medical department. Drawing on the notion of articulation work and with an emphasis on negotiations and communications as crucial parts of this work (Suchmann 1996), I have argued that the quality coordinator has a certain potential as an articulation worker in quality development processes. Precisely because of her position as an outsider in the hospital organisation, the quality coordinator was able to move between the various organizational layers and professional groupings, and to both collect and connect a variety of opinions about what constitutes 'suboptimality'. The quality coordinator was provided with a particular view on the quality development project under scrutiny, which covered the perspectives of several groups of staff and organizational units. In other words, she was able to collect the various perspectives and confront them with each other and in that way reveal the details of particular parts of the care pathway. Additionally, she was able to usher perspectives along as she went, and in that respect she became a mobile source of information. This ability also allowed her to frame and support the negotiations via decisions about what should be negotiated and who should participate in them. The quality coordinator depended on the inputs she received from interactions with the other actors in the care pathway process, and her ability to frame the negotiations was not limitless. Nevertheless, with this analysis I have attempted to show how the quality coordinator, based on her organizational positioning and her delegated responsibility for the care pathway project, was provided the opportunity to place herself among actors who set the agenda for regulation of hospital work.

Pinder et al. (Pinder et al. 2005) argue that care pathways should be understood as a political tool emphasising some aspects of clinical work and silencing others. Similarly,

in this analysis I find that some aspects of the care pathway for medical infections are emphasised in the negotiations of key problems and future changes, while others are silenced. However, based on the the final part of the analysis I suggest that delineation, and hence marginalization of some aspects of hospital work, merely constitutes one part of the story. Surely, some sort of tunnel vision that enables the participants to focus on particular problems is pursued, but the surrounding work practices are not easily marginalised. Rather, they are constantly present in their entanglement with the care pathway process. Or in other words: the surrounding work practices are not silent, but draw attention to themselves through acts of resistance performed by actors who experience how important characteristics of one working configuration are potentially damaged by the change in others. This resistance is dealt with along the way, but this is challenging because it is a balancing act between keeping some aspects of the clinical work stable and allowing for changes in order to improve the care pathway. Hence, the use of this particular project included both a planned and structured effort of quality development related to the specific structure provided by the framework for care pathway descriptions and a more *ad hoc* effort of maintaining control over and mitigating the disordering that became a by-product of the process.

PART IV

DISCUSSION

In this the final part of the thesis, I will discuss my findings and reconnect them to the broader debates on quality development in health care in science and society. Here, I will also discuss the implications of these findings for further research and for practitioners in hospitals. Finally, I will reflect upon the methods and analytical concepts used.

THE EMERGENCE OF QUALITY WORK

In the introduction to this thesis, I asked the following research question: How does quality work emerge in the hospital departments as local and specific processes in the intersection with standardised methods and requirements of quality development? What are the implications for the way quality work is organised and managed? These questions developed out of an interest in the empirical observation of quality development as a type of work in the health care sector that had become increasingly settled, delineated and independent. By using the conceptualisations of work developed by Strauss and colleagues and analytical principles inspired by Actor Network-Theory, I developed an analytical framework that allowed me to distinguish quality work from clinical work and explore the development of quality work through processes of translation and alignment.

Emerging, temporary and contested connections

Based on the three analyses of this thesis, I have characterised quality work as sets of *emerging* and *temporary* connections of actors in the hospital departments. The studied connections of actors were constructed in direct relation to distinct quality development processes and thus organised as short-term projects. In contrast to the organisation of clinical work, where actors were connected around the responsibility for different parts

of the clinical work, the connections of actors in relation to quality work rather started from scratch. Each new quality development project was a new situation, where goals had to be defined and negotiated and where actors and actions were not aligned beforehand. Hence, these projects constituted processes of translation under which the implicated actors, although they were not unrelated with each other or unfamiliar with each other's work, were expected to align in new ways in order to contribute to new and better care.

Elusiveness coupled with normativity serves as the prevalent explanation for why the quality movement has gained such popularity; it is difficult to reject and can be implemented everywhere (Friis 2014: 544). In this study, the elusiveness of the concepts and methods of quality development was also striking, and the observations revealed different perceptions and understandings of what constituted both quality and quality problems, and hence also what would count as relevant work to perform in order to improve quality. Alignment of managers and staff to common purposes or problems was a challenging endeavour that required efforts of motivation, negotiation and persuasion. In this way, the elusiveness of quality development in this study was an obstacle or a challenge (or according to the quality coordinator in the surgical department, a premise) rather than a force that allowed the various quality development initiatives to settle as local versions in the individual hospital departments. Even in situations where quality data provided a very clear image of a quality problem, there was no guarantee for the managers and staff members' stable alignment, and both the validity and relevance of these data were contested. Furthermore, the quality development projects analysed in this thesis included actors from different departments, professional groupings and managers on different levels and were characterised by disagreement as to the relevance, importance and 'true' nature of the quality problems. In these situations, it could take

months to reach agreement on a purpose that was relevant for the many rather than for the few.

Overall, the observations revealed that every quality development project – large or small – began with misalignment and ended with alignment, though with varying strength and stability. All three analyses followed processes in which quality work emerged, however 'Operation joint future' (Chapter 8) is in particular an example of how these alignments emerged unexpectedly as fragile rather than stable connections. In this analysis, I showed how thorough consideration of the actors' aspirations and motivation to participate in the project was an important part of the preparations for the process, but actors' also changed positions along the way. In this way, the progress of the project required continuous attention to the effects not only of the reformulated purposes but also to the effects of the attachment and detachment of actors that followed. Neither the quality project, nor the related work and the potential outcomes were black-boxed (Latour 1987) of. In this way, this analysis also portrays quality work as *fragile*. What these characteristics of emergence, temporality and fragility compelled in relation to the managerial and coordinative efforts I will return to below.

The intersection with clinical work

Although, I have framed quality work as a distinct type of work, different from clinical work, this study has also illustrated how quality work is shaped in the intersections with the organisation of clinical work. Based on these findings, I argue that quality work acquires its properties in its close relation to the clinical work and the organisation that it seeks to develop. In the literature on quality development in health care, the socio-material infrastructures of clinical work are introduced as a means of explaining the challenges faced by implementers of quality development technologies (Zuiderent-Jerak, Berg 2010, Vikkelsø, Vinge 2004, Allen 2012). Overall, studies such as these help to

illustrate how the implementation of quality development initiatives is by no means straightforward, as new quality development technologies are drawn into a *"a strongly pre-configured world"* (Allen, Pilnick 2005: 686). The health care technologies are inscribed with certain aims and affordances, but their eventual use and effects depend on the specific network in which they are implemented (Berg 1997, Berg 1996, Allen 2012). Additionally, researchers have exemplified how quality development initiatives involve a clash of competing logics of improvement, which challenges its implementation according to the intentions (Jerak-Zuiderent, Bal 2010, Allen 2013).

This study contains several examples of how individual quality development processes faced problems in the encounter with the existing organisation of clinical work. As already mentioned, an overall virtue of quality development is the inherent normativity, which makes quality difficult to ignore and reject, coupled with its close relation to political and public programmes of transparency and control. However, when faced with the everyday clinical work, the hierarchies of professions and wards, competing resources etc. the quality development processes emerged as adaptations to specific contingencies of the work and organisation in the departments. Nevertheless, quality development was difficult to ignore, and the importance of the clinical work was also unquestionable, which necessitated a process of alignment. Furthermore, the effects of quality work were not unconditionally positive, and the quality development projects included a potential risk of reducing the level of quality rather than improving it. Accordingly, quality work developed in an encounter of accounts of potential and future quality improvements and the current, urgent and relatively fixed properties of clinical work.

By maintaining a focus on quality work as a distinct type of work that emerges locally and as smaller arrangements of aims, tasks and actors, it became possible to see how the specific details of quality work developed in correspondence with the already existing

clinical work. In this way, quality work was interrelated with clinical work in at least two ways. Firstly, quality work was essentially aiming at assuring, monitoring and improving clinical work. Secondly, quality work was a set of tasks and resources in terms of assigned actors and time that had to align with or adapt to the set of tasks and resources of clinical work. Clearly, the main purpose of quality work was to control and develop the quality of clinical work, but quality was also affected by and adapted to the structures of clinical work.

QUALITY COORDINATOR WORK

Until now, I have discussed how quality work develops. In this section, I will supplement this discussion by turning to the specific tasks of the quality coordinators.

Flexible management of rule-based work

One part of the quality coordinators' work is, as described in the hospital's quality policy, related to the timely execution of tasks related to quality development. Articulation work is defined as the work that makes discrete tasks add up to an ordered sequence of work (Strauss 1985, Strauss et al. 1997). Strauss and colleagues (Strauss et al. 1997: 151-90) outline three levels of articulation work in relation to clinical care: 1) the articulation work done by the managers in charge, who appoint the major tasks to be performed, when and in what sequence, 2) the articulation work done by the (clinical) managers, who allocate staff to the identified tasks, monitor them, supervise the staff etc. and 3) the articulation work done by the staff during the execution of the actual assignments. These levels of articulation work are analytical constructs, and whether the levels are as distinct as described above is an empirical question, but if we retain them as a descriptive vocabulary, the quality work studied here carries elements from all three levels.

Based on this study of quality coordinators' work, I believe that it is possible to define the quality coordinators work as articulation work on the first level, though with the addition that this articulation work is also characterised by efforts related to the construction of connections between staff, managers, technologies etc. in relation to the quality development processes. Part of this work resembles what Latour refers to as translation of interests (Latour 1991), where the individual actors and groups of actors are aligned around a common programme of action. This aspect of the quality coordinators work was especially treated in Chapter 8, where we saw that analyses of the doctors' motivation to participate were an important part of the quality coordinator's work.

I have characterised quality work as emergent, but also as formed by its interrelation with the local organisation of clinical work in the departments. This finding leads to the proposal of a second conclusion regarding the specific work that the quality coordinators performed. I suggest that quality coordinators' ability to support and affect the processes leading to alignment of actors around the quality development processes was related to their abilities to become knowledgeable of, consider and react upon the contingencies of the local departments. In the second analytical chapter (Chapter 9) on the construction and utilisation of quality data, I argued that quality data became constructed as simplifications of a messy reality, and that the messiness became re-introduced into the further process in which quality problems were defined. In that respect, quality work was constructed in a dynamic movement between the presentations of the simplified notions of quality data and the complexities met in everyday clinical work. In the third analysis (Chapter 10), I described a situation where quality work was developed through the movement between various understandings of the problems related to the care for patients with medical infections, described by actors and groups of actors from different wards and departments in the hospital. These moves allowed for the introduction of

tacit knowledge that for instance revealed the paradoxical finding that the sepsis guideline (Chapter 10) potentially could disrupt quality simply by being a time and resource-consuming factor in the hospital, which would cause a shift in attention in highly acute situations of patient care. Ironically, clinical work is the subject of quality development, but in this case clinical work had to be protected from the actors introduced by the quality development process, and accordingly this guideline was adjusted to fit the specific organisation of work in the acute clinic.

Others have in similar ways drawn attention to the findings of one man's order being another man's disorder (Vikkelsø 2005, Berg 1997, Bowker, Star 2000), but the emphasis in this thesis has been to specifically explore the work performed to counteract these and similar challenges in the quality development processes in the two hospital departments. My overarching argument is that actors in quality work become connected in a tension between emerging and interrelated networks, fragile and less fragile networks, simplified and complex accounts of quality, respectively. Accordingly, the coordinative efforts related to the construction of these connections imply a *dynamic movement* between these networks, which ascertains that this interrelatedness is taken into consideration. Additionally, the management of otherwise firmly framed quality development methods entails *flexibility* that allows for contingent solutions, a safeguarding of what already works and for a prioritisation among many possible initiatives. In the hospital departments studied here, the quality coordinators are provided with a major responsibility for this flexible management of a rather rule-based quality development process. This is a challenging position to be in, because it involves a spokesperson role (Callon 1986) for both the local department and the quality movement, with its related tasks and aims. However, this is also a powerful position, because mandate is given to question the quality of clinical work and ultimately

contribute to the decision of reorganisations and change in the name of quality development.

A new authority in the hospital departments?

Based on the findings of this study, I also suggest that the quality coordinators' work resembles the first type of articulation work referred to above, and hence a higher-level, 'task-appointing and ordering' type of articulation work. This level of articulation work places the quality coordinators in a far more 'managerial' position than it is officially described in, for instance, the hospital's quality policy.

This thesis inscribes itself into a long-standing sociological interest regarding the social organisation of work. Among the classic problems that have been investigated under this heading is the relation between systems of governance and professions, and between professions and managers (Allen, Pilnick 2005). The increased formalisation of quality development in terms of national frameworks of quality standards and standardised methods of quality development can be perceived of as such systems of governance. In this realm, there has been an interest in the investigation of the health care professions' reactions – especially those of the medical profession – to various systems of monitoring and control (see for instanceWaring 2007a, Levay, Waks 2009, Numerato, Salvatore,D. and Fattore,G. 2012). Studies such as these have both revealed how doctors take over the control of these systems in order to limit the managerial control over their work (Waring 2007a, Levay, Waks 2009). Other studies show how systems of monitoring and control transfer authority over knowledge about clinical work from the professionals to managers, and thus become an opportunity to "*change, or indeed challenge, established ways of working*" (Waring 2009: 1730).

Findings such as the latter suggest that the quality movement contributes to the emergence of new authorities in health care through the introduction of new regimes of knowledge. Additionally, such studies suggest that quality development is met by health professionals with resistance or attempts at self-protection that may result in professional internalisation of and control over the methodology of quality development. This study contributes to a similar understanding of how systems of regulation produce new types of boundaries between management and the health professionals. Based on this study, I argue that the quality movement has contributed to the positioning of the quality coordinators with a certain authority related to their delegated responsibility for quality development processes. The emergence of the quality coordinator position in the hospital is described as a result of implementation of mandatory methodologies of quality development. For instance, DDKM – with its timeframes, tasks and points of attention – provides a mandatory structure for quality work. Thus, the quality coordinators' position in the departments is related to this increased number of pre-defined quality development tasks, and they are employed as facilitators of these tasks. The findings of this thesis, however, guides our attention towards the quality coordinators' achieved position as experts of a certain kind of knowledge.

This knowledge consisted of quality data, but it also of the knowledge collected by the quality coordinators by acts of listening, observation and engagement in conversations. Both the quality data and the more tacit forms of knowledge were layered and stored as resources that enabled intellectual moves back and forth between simplicity and complexity, between quality work and the intricacies of clinical work and between parallel processes of quality development. It provided the quality coordinators with a particular type of insight that put them in a significant position from which they were able to question the quality levels of the clinical work and both define and support suggestions of change. The quality coordinators' scope of action was clearly empowered

by this access to knowledge, but in spite of their privileged position it is important not to overemphasise the quality coordinators' role. Their insight was restricted by available technologies and methods for provision of quality development. Secondly, they were working with knowledge that was detached from the clinical wards and hence less detailed than the knowledge that the clinical staff possessed. This was the inevitable drawback of the quality data; they are able to move and induce reflections away from the concrete and situated incidences of clinical work. However, they had to be re-translated into their more complex original form, in order to allow solutions to the problems that the quality data portrayed to be found.

Accordingly, the quality coordinator was dependent on the clinical staff's situated insight and their willingness to supplement quality data with this insight. The quality coordinators' ability to act as 'experts on quality development' was found in a balancing act between their ability to master the techniques of the quality assessments and the simultaneous collection of assessments of these data provided by the clinical staff. As Latour argues, every stage of translation is reversible, and every step made – regardless of whether it is upstream (towards universalities) or downstream (towards the local, material, particular) – encompasses both gains and losses (Latour 1999b: 70). This ability to move both upstream and downstream between the local and multiplied clinical practices and in this case quality data, when pushing for and making priorities between different possible quality development processes, was characteristic of the conduct of the quality coordinators' work.

On the distance between quality work and clinical work

In the introduction to this thesis, I described the pending Danish debate about quality development, which suggests that quality development is separated from the clinical work or even destroys quality. For instance, activities related to quality development

were described as taking time from clinical work and quality workers were accused of being self-supplying and responding to their own needs instead of the needs of the departments. Furthermore, it was argued that quality development had become disconnected from the health professionals and the clinical realities (Buist, Middleton 2013). This leads to the interesting question of whether quality development is brought further away from the clinical work and the clinicians rather than integrating it in the health care institutions, as was originally aimed for. This thesis does not provide an answer to this question, but it does highlight some of the challenges faced. The quality coordinators are made responsible for the quality work and the related tasks of quality monitoring, assessment and development. This organizational structure, where quality development is singled out and placed in the hands of 'experts', implies a shift in the responsibility for at least part of the articulation work related to the way in which tasks and assigned actors are ordered in the hospital departments.

As I showed in the introduction, part of this criticism also concerns the debate about the misuse of resources for quality development purposes, taking time away from the clinical work directly related to care of patients. This analysis could easily be read and used as a contribution and support of the argument that quality development, rather than improving quality, in fact does the opposite. There is a fairly high and plausible risk of both the quality being affected by the redirection of resources and that purposes and tasks of quality development are difficult to align with clinical work. Before I allow myself to join this choir of criticism, I think we should ponder a little over the observation that these interrelations and co-disturbances are actually dealt with. If we think about it, would it not also be a cause for criticism if someone knew about the risk of hidden and severe pressure ulcers and the benefits of introducing screenings systematically? And would it not be a cause for criticism if the care pathways were not discussed and their problems addressed once in a while? Here I am not trying to argue

against any type of criticism of the present quality movement and its individual content, but rather to address another type of argument that leads me towards an emphasis of the importance of local attempts to coordinate and prioritise the many different requirements of and possibilities for quality improvement.

This study emphasises the work of the actors to whom this task of coordination and prioritisation is given, and the work that goes beyond the processing of simplified quality data and execution of formulaic requirements to the quality development technologies. Hereby, I suggest that the expertise of the quality coordinators is not only related to the particular methods and technologies of data construction, but also to their ability to move and place themselves in situations where other types of (discursive) information are processed. Methodologically, it is much more straightforward to study the knowledge stored as data, but by following the quality coordinators' daily activities I became aware of this parallel system of tacit knowledge construction. In this way, I also offer an alternative understanding of the relation between systems of regulation and hospital organisation, where the quality coordinators are both the result of and mediators of the systems of regulation. I suggest that the quality coordinators were enabled with a platform to frame and support the translations processes, in which the actors were connected to quality development processes. Thus, quality development technologies introduced a position from where existing clinical work could be challenged or changed.

The quality coordinators are not managers in a formal sense, but they did perform managerial tasks. Hence, on a practical note, the rather neutral vocabulary used to describe their role in the departments[34] should be reconsidered, not least in relation to the skills required and the course work that is provided for the people holding these positions.

Reflections on the empirical and analytical strategy

The above conclusions are reached through a particular analytical framing and a particular empirical position. Firstly, I have studied quality coordinators at work. I chose to make the quality coordinators' working days the main guiding principle of observations, in order to explore how the many purposes and methods of quality development were handled in the local hospital departments. The quality coordinator position in the hospital allowed this study to be performed in a central location, where the handling of this plurality would be much likely. In the wake of this study, I will argue that this was a both relevant and informative place to position myself. The main strength of this empirical strategy was that it allowed for a study of a broad range of invisible practices related to quality development that went beyond the formal situations of meetings and workshops, and beyond the formulaic descriptions of how to perform quality development. Following the path of the quality coordinators made certain invisible practices stand out as prominent. Among those were the physical mobility and ushering of arguments that mediated and allowed for negotiations between actors, even in absentia. Furthermore, this empirical strategy allowed me to study quality work as a distinct type of work in the hospitals.

In contrast, and as I have already discussed, it was also a choice that limited what I was able to observe. I relied on the quality coordinators' moves, and the result is a somewhat asymmetrical study, in the sense that it has placed less emphasis on a) the practices and relations of other actors in the hospitals (e.g. managers and staff), and b) the entire processes of quality development and in particular the process that follows from the definition of problems and purposes that has gained significant attention in this thesis. At one point during the fieldwork, I was especially tempted to go along with b), but decided to be loyal to my original plan. Now I find it relevant to emphasise the virtues of

this choice, precisely because it kept me on a path where I had to pay attention to and find patterns in even the most insignificant practices, instead of being caught up in practices referred to by others as relevant for a particular quality development process. Still, I could have supplemented the chosen empirical path with a). Also, here I would claim that this would have required that I chose particular quality development processes as central for the analyses, and much earlier on in the process. The choice of the care pathway process, the project on relational coordination and the utilisation of quality data were made after I finalised the field work. Hence, I could only retrospectively have been approaching the practices and relations of other actors independently of the quality coordinators. I did not follow this path, but I will not reject its relevance, and for future research I would find it interesting to explore the notions of quality work as embedded in and/or interrelated with other kinds of networks than those I could become aware of through the quality coordinators' days of work.

By choosing to make the quality coordinators central figures in this study, I have also made the conclusions of this study vulnerable to being criticised for being basing on a particular local and Danish phenomenon. To counter this criticism, I would argue that my conclusions could be read in different ways. In a Danish context, the conclusions could certainly be read to gain a particular understanding of the functioning of the quality coordinators, and maybe even be read as a set of suggestions of what skills and efforts are required to manage this positioning. I would also claim, however, that the findings as explicated and discussed in the above have more general implications that reach beyond the Danish health care sector, in relation to the challenges encountered when particular initiatives of quality development are implemented and adapted to the local health care organisations and how they are possibly managed.

CONCLUSION

This study grew out of an interest in the emergence of a quality and safety movement that has entered the hospitals as a system of ideals, tasks and actors. From this very broad desire to study 'quality work', I anticipated that other questions arise than those that are often asked in relation to the effects, and affordances of delimited quality development methods and technologies. Through an empirical strategy that placed me in the midst of a particular organizational position and a particular type of quality work – namely the work of quality coordinators and hence the coordinative and organizational efforts implied in quality development processes – particular questions arose in relation to how quality work develops, is framed and challenged by co-existing though interrelated orderings in hospitals.

Quality work is emergent, contested and unstable

Through the analyses in this thesis, I define quality work as emergent connections constructed concurrently with a common point of reference in the form of a formulated purpose or a problem definition. In these analyses, connections do not emerge without extensive work. On the contrary, they are challenged by resistance, differing and shifting interests and motivations among staff and managers, as well as resistance provided by the local organisation of clinical work. On the same note, I conclude that quality work is organised as time-limited projects and highlight this as a prominent characteristic of quality work. Accordingly, quality work is not only emergent and negotiable, it is also unstable and fragile. Thus, the connections of quality work should be conceived of as the effects of continuous efforts of coordination, conviction and negotiation.

In this way, I also distinguish this study from the studies on health care quality development that are particularly interested in the effects of particular quality

development initiatives on clinical work. Many of these studies are not only interested in effects, but also in the work required in order to achieve or maintain these results or counter the potential undesired effects. Still, the majority of these studies maintain a focus on how clinical work is destabilised and reordered as a result of quality development initiatives. By emphasising quality work as an independent type of work within the hospitals, structured by its own aims, tasks and assigned actors, this study has marginalised both effects on clinical work and the particular technologies of quality development as an object of analysis. Instead, the efforts in the local hospital departments to develop local versions of quality work were illuminated and became the focal point in all three analyses.

Quality work develops through intersecting connections

This study also demonstrated how the individual encounters of quality work emerged in the intersections of the methods and procedural descriptions of quality development and the local organisation of clinical work. I demonstrate how, overall, quality development requires certain activities to be executed with a certain timeliness and sequentially, and requires the participation of staff and managers in the departments. Additionally, the individual projects encompass certain ideals of how to structure and manage clinical work. In that way, quality work develops under the influence of both the individual quality development project, but ultimately also under the influence from the way in which quality clinical work is organised and what the different groups of health professionals considers as relevant. In each new project, the methodology or specific technologies of quality development meets the existing organisation of clinical work in the hospital, and in this meeting the specific features of quality work developed. The strengths of quality work and clinical work are dissimilar, but quality work emerged in consideration of both types of ordering.

Quality work forms new boundaries between management and professions

The final main conclusion of this thesis is that quality work emerges through some particular organising efforts, which in this particular study are related to the observation of the quality coordinators' work. I suggest that the emergent, unstable and contested nature of quality development requires the ability to support and frame the encounters between actors with dissimilar interests and motivations. The quality coordinators in this study were provided with this ability by the use of quality data on the one hand, and by the tacit information they received when moving around in the departments on the other hand. This allowed them to collect additional knowledge about the details of the departments, including different positions of interest or motivation among the staff or the distinct details of the ways in which the clinical work was organised. This also gave them the ability to set the scene of these encounters and thus frame what could be discussed and by whom. Together with the above-mentioned need to adapt quality work to clinical work, I suggest that the execution of the distinct quality development processes relied on the quality coordinators' ability to relate to this need of adaption, but also on their ability to strategically frame the processes, for instance by reformulations of purposes.

CONTRIBUTION

With this study, I have first and foremost provided an empirical exploration of the work that leads to distinct connections of actors in quality development processes. Hereby, I have provided examples of distinct ways in which quality problems and purposes are defined and of how managers and staff in the hospital are connected. I also show how quality work develops in the intersections between procedures for monitoring and assessment of quality and ideas, and related procedures for the improvement of quality and the local work contingencies. Hereby, I especially contribute to that part of the

literature that calls for attention to the way in which the complexities of implementation of quality development technologies are dealt with in practice.

Secondly, this study contributes to the field of studies on quality development that emphasises the change in boundaries between managers and professionals. By making the quality coordinators an entry point and an example of the organizational implications of the quality and safety movement, I suggest that I have studied a particular type of articulation work in the hospitals. The quality coordinator function is officially described as supportive to the department managers, as a function related to the planning of distinct activities and surveillance of the departments' level of quality. I have showed how the quality coordinators contribute to the emerging assemblages of quality work by acts of support and framing. By illustrating the entanglement of quality work and clinical work, I argue that the quality coordinators' work reaches beyond the individual quality development projects. I do not claim that they are omniscient or able to act alone, but they are provided with the responsibility for a special kind of work that allows for the questioning of existing clinical practices.

With this thesis, I illuminate a current state of affairs related to the organisation of quality work in the Danish health care sector and the work of particular actors in this organisation. But I also describe what may be conceived of as a snapshot of a continuous course of changes in the health care sector more broadly, caused by the focus on quality, quality assurance and quality improvement. This cause of changes is continuing, but I will round off this thesis by stating an interest in its future implications for the way in which health care is organised and managed, and not the least by whom.

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SUMMARY

The issue of quality and how to provide the best possible care for patients has always been a central concern in the health care sector. For the last decades, this concern has resulted in formulations of quality standards and clinical guidelines that define best practices for clinical work, as well as an increased use of methods and procedures to measure, assess and control quality. In this way, quality development includes certain expectations and requirements, not only to the practices of patient care but also to the practices of quality development. Accordingly, the *organisation* of quality development in health care has become a matter of concern in its own terms.

Quality development in health care is an ambiguous superordinate for a vast array of initiatives aiming towards changed practices of work, increased efficiency, patient satisfaction and of course increased recovery, reduced mortality and other effect-related measures of the health care service delivered. Additionally, quality development includes firm specifications on how quality development should be performed. In this way, quality development defines and outlines not only one, but several distinct expectations to the methods, tasks and timeliness of quality development. The main interest in this thesis is to study how quality work emerges in local health care settings and in a field of plural expectations to the way it is performed. Accordingly, this thesis explores the following question:

How does quality work emerge in the hospital departments as local and specific processes in the intersection with standardised methods and requirements of quality development?

What are the implications for the way in which quality work is organised and managed?

In the research literature on quality development in health care, a prevailing theme is a tension between the clinical work as existing ordering and quality development, which imposes new requirements to the way health care services are organised. These studies have raised awareness about the effects (intended as well as unintended) of distinct methods of quality development on the practices in health care, the dominance of new types of knowledge and reasoning and the changed boundaries between managers and health professionals. Additionally, studies have raised an interest in exploring how these tensions are challenging the implementation of specific processes of quality development, and invite further explorations of how these tensions can be dealt with.

Drawing on the concepts of work and types of work (Strauss 1997, Strauss 1985) and translation (Callon 1986, Latour 1999b, Latour 2005), the thesis develops an analytical framework that enables the exploration of quality work as developed through continuously emerging networks. Accordingly, the thesis takes an interest in the way in which actors and types of work are connected around distinct quality development processes and how they are made coherent or coexistent with the clinical context that they are predestined to assess and improve.

Empirically, this thesis explores the work of quality coordinators in two hospital departments in a Danish hospital. Here, quality development has become a mandatory part of the organisation and a distinct part of hospital life, with its own agendas, assigned actors and tasks. The introduction of quality coordinators in some Danish hospital departments can be seen as part of this development, where the responsibility for local quality development processes is delegated from the department managers. The empirical material was collected through participant observations of the work of these quality coordinators, which allowed for empirical exploration of how quality work develops through these emerging networks, in relation to three empirical cases.

The first analysis explores the mutual process of formulating (and reformulating) a purpose of a quality development project and engaging significant actors in this project. The purpose defines what should be improved, but implicitly also who would be significant participants and accordingly necessary to engage in the process. The next analysis explores the efforts of constructing, storing and utilising quality data in an attempt to organise emerging connections of actors. This analysis explores quality data as a result of a translation process, which is both premised by the audit methodology and the perceived demands from DDKM, and constitutive for the quality coordinators' position in the departments. Still, the utility of these data relies on an effort beyond their construction – an effort that reintroduces some of the details related to the clinical work that it represents. The third and final analysis investigates how the quality coordinators contribute to the processes of quality development from an

organizational position outside both management and clinical work. It is characteristic of the quality development process outlined in this analysis, as well as the other analyses, that it is a short-term project aimed at changing a delimited section of clinical work. Each new quality development project is a new situation in which purposes and problems have to be defined and negotiated anew, and where the involved actors are not aligned beforehand.

Based on these findings, the thesis ends by concluding that quality work is characterised by consisting of emergent, contested and unstable connections of actors. These connections emerge in the intersections between the formulaic demands of quality development and the contingencies of the local organisation of clinical work. This results in adaptions of both the way in which quality work is executed and the content of distinct processes of quality work. This leads to the suggestion that management of quality work relies on the ability to respond and adapt to the specific instances of resistance against and contestation of the individual quality development. Additionally, the thesis concludes that the ability of the quality coordinators to frame the encounters between different actors in the departments pushed the quality development processes forward. This ability relies both on the quality coordinators' capacity to utilise the existing quality data in the departments and their capacity to seek out and use additional, tacit knowledge through the physical moves in the departments that allowed for supplementary insights into the local details of clinical work.

DANSK RESUMÉ

Kvalitet og spørgsmålet om, hvordan man tilbyder den bedst mulige behandling og pleje af patienter i sundhedssektoren, har altid været centralt. Inden for de sidste 20 år har dette desuden resulteret i udviklingen af bl.a. kvalitetsstandarder og kliniske guidelines, som definerer 'best practices' for klinisk arbejde, samt metoder og procedurer, der definerer, hvordan monitorering, vurdering og kontrol af kvalitet kan og skal udføres. Kvalitetsudvikling inkluderer derfor både bestemte forventninger til den måde, klinisk arbejde udføres på, og forventninger til det arbejde, der relaterer sig til kvalitetsudvikling. Som følge heraf er *organisering* af kvalitetsarbejde opstået som en særskilt interesse i sundhedsvæsenet.

Kvalitetsudvikling i sundhedsvæsenet er på den ene side en flertydig størrelse og et overbegreb for en lang række initiativer, der har til formål at forandre og forbedre behandling og pleje af patienter, øge effektiviteten og ressource-udnyttelsen, øge patienttilfredsheden samt medvirke til forbedrede over-levelsesrater, reducerede mortalitetsrater eller lignende mål for effekten af de leverede ydelser. På den anden side er kvalitetsudvikling også karakteriseret ved at indeholde fast definerede aktiviteter og metoder. På den måde indeholder kvalitetsudvikling ikke bare én, men flere særskilte forventninger til metoder, aktiviteter og tidsstrukturer. Denne afhandling sætter særligt fokus på, hvordan kvalitetsarbejde opstår lokalt i sundhedsvæsenet, nærmere betegnet i to hospitalsafdelinger, og i et felt med mange forventninger og krav. Mere præcist søger afhandlingen svar på følgende spørgsmål:

Hvordan opstår kvalitetsarbejde i hospitalsafdelinger som konkrete, lokale processer i mødet mellem standardiserede metoder og krav til kvalitetsudvikling?

Hvad er betydningen af dette for den måde, hvorpå kvalitetsarbejde organiseres og ledes?

I den eksisterende forskningslitteratur om kvalitetsudvikling er et ofte berørt tema de spændinger, der opstår mellem klinisk arbejde som én type orden, og kvalitetsarbejde, som en anden type orden, der introducerer nye krav til den måde, sundhedsvæsenets ydelser er organiseret og udført på. Disse studier har bl.a. skabt opmærksomhed på effekterne (tilsigtede såvel som utilsigtede) af forskellige metoder til kvalitetsudvikling, hvordan nye dominerende typer af viden og måder for beslutningstagen opstår samt på ændrede grænsedragninger mellem ledere og sundhedsprofessionelle. Derudover har studier vist, hvordan disse spændinger udfordrer implementeringen af bestemte kvalitetsudviklingsprocesser, og efterspørger studier, som kan øge forståelsen af, hvordan disse spændinger kan løses.

Afhandlingen tager udgangspunkt i de teoretiske begreber 'work' og 'types of work' (Strauss 1997, Strauss 1985) og 'translation' (Callon 1986, Latour 1999b, Latour 2005), hvorved der udvikles en analytisk ramme, som gør det muligt at studere kvalitetsudvikling som bestående af særskilte men emergerende netværk (Latour 1999a, Latour 1996). Hermed er hovedinteressen i denne afhandling at udforske den måde, aktører og forskellige typer af arbejde bliver forbundet i relation til bestemte kvalitets-udviklingsprocesser. Desuden udforskes det, hvordan disse forbindelser kommer til at hænge sammen med eller eksistere side om side med det

kliniske arbejde, som kvalitetsarbejdet er sat i verden for at vurdere og forbedre.

Det empiriske udgangspunkt for afhandlingen er det arbejde, der udføres af kvalitetskoordinatorer i to danske hospitalsafdelinger. I disse afdelinger er kvalitetsudvikling blevet en særskilt og formel del af organisationen med særskilte dagsordner, aktører og opgaver. Introduktionen af kvalitetskoordinatorer i flere danske hospitalsafdelinger, og således også i dem, der indgår i dette studie, kan anses for at være resultat af denne udvikling, hvor ansvaret for de lokale kvalitetsudviklingsprocesser er blevet uddelegeret af afdelingsledelsen. Det empiriske materiale blev indsamlet via deltagerobservation af disse kvalitetskoordinatorers daglige arbejde, hvorved det blev muligt at studere udviklingen af kvalitetsarbejde i relation til tre empiriske cases.

Den første analyse omhandler den samtidige formulering (og reformulering) af formål og tilknytning af væsentlige aktører til et kvalitetsudviklingsprojekt. Formålet definerede, hvad der skulle være genstand for kvalitetsforbedring, men implicit også, hvilke aktører der blev anset for at være væsentlige deltagere i projektet og dermed obligatoriske at engagere. Den næste analyse omhandler det arbejde, som blev lagt i at konstruere, arkivere og bruge data i forsøget på at organisere emergerende forbindelser mellem aktører. Denne analyse udforsker kvalitetsdata, som et resultat af translationsprocesser, der både er givet af audit som metode og de oplevede forventninger fra Den Danske Kvalitetsmodel og bliver konstitutiv for kvalitetskoordinatorernes position i afdelingerne. Udnyttelsen af kvalitetsdataene afhænger dog stadig af arbejde, der rækker ud over deres konstruktion – et arbejde karakteriseret

ved en re-introduktion af udvalgte detaljer ved det kliniske arbejde, som dataene repræsenterer. Den tredje og sidste analyse udforsker, hvordan kvalitetskoordinatorerne bidrager til kvalitetsudviklingsprocesserne fra en organisatorisk position uden for både ledelse og kliniske arbejde. Det er karakteristisk for kvalitetsudviklingsprocessen beskrevet i denne analyse, såvel som de andre analyser, at der er tale om tidsbegrænsede projekter, som har til formål at forbedre en afgrænset del af det kliniske arbejde. Hvert nyt kvalitetsudviklingsprojekt udgør en ny situation, hvor formål og kvalitetsproblemer skal defineres og forhandles på ny, og hvor de involverede aktører ikke er bragt sammen på forhånd.

Baseret på dette fund slutter afhandlingen med at konkludere, at kvalitetsarbejde er karakteriseret ved at bestå af emergerende, forhandlede og ustabile forbindelser mellem aktører. Disse forbindelser – eller netværk – opstår i mødet mellem forskrifterne for, hvordan kvalitetsudvikling skal praktiseres, og den måde klinisk arbejde er organiseret lokalt. Derfor foreslås det, at organisering og ledelse af kvalitetsarbejde er afhængig af evnen til at respondere på og tilpasse de enkelte processer til de specifikke typer af modstand og uenigheder, som opstår undervejs. Desuden konkluderes det, at kvalitetskoordinatorernes evne til at rammesætte mødet mellem forskellige aktører relateret til de enkelte projekter medførte fremdrift i projekterne. Denne evne afhang af kvalitetskoordinatorernes brug af eksisterende kvalitetsdata og af kvalitetskoordinatorernes evne til at udforske og bruge supplerende (tavs) viden, som opstod, når de fysisk placerede sig rundt omkring i afdelingernes afsnit og gav dem andre typer af indsigter i detaljerne ved udførelsen af klinisk arbejde.

APPENDIX 1: LIST OF PSEUDONYMS (KEY ACTORS)

Hanne	**Quality coordinator, medical department**
Lene	**Quality coordinator, surgical department**
Anders	Consultant physician, surgical department (surgical ward (OP))
Anne	Quality consultant, surgical department
Christina	Consultant, department of HR & quality
Flemming	Chief physician, surgical department
Iben	Quality consultant, surgical department
Karen	Ward sister, surgical department (surgical ward (OP))
Kirsten	Nurse, surgical department (bed unit)
Lilian	Consultant physician, medical department
Louise	Head nurse, surgical department
Majbritt	Nurse, medical department (acute clinic)
Pernille	Quality consultant, department of HR & quality
Sofie	Quality consultant, surgical department
Susanne	Consultant physician, medical department
Trine	Ward sister, medical department (acute clinic)

APPENDIX 2: EMPIRICAL MATERIAL

Participant observation

	Date	Event	Hours of observation (approximations)
Surgical department	August 28th - 30th 2012	Introduction to the department	18
	September 18th - 20th 2012	Quality coordinator, work	20
	September 21st 2012	Meeting of the working group on quality	2
	October 1st - 5th 2012	Quality coordinator, work	35
	November 26th-29th 2012	Quality coordinator, work	30
Medical department	November 2nd-6th 2012	Quality coordinator, work	30
	June 24th-28th 2013	Quality coordinator, work	30
	Sebtember 11th 2013	Meeting, care pathway/medical infections	2
	Oktober 7th-11th 2013	Quality coordinator, work	40
	November 13th 2013	Quality coordinator, work	6
	April 4th 2014	Status, briefing on care pathway project	2
	December 9th 2014	Hospital workshop on care pathways	4
Network for quality coordinators	June 4th 2012	Meeting	2
	September 4th 2012	Meeting	2
	October 5th 2012	Meeting	2

Interviews, formal

Hospital	Quality manager
Surgical department	Quality coordinator Heads of department (one interview): - Head nurse - Chief physician
Medical department	Quality coordinator Heads of department (one interview): - Head nurse - Chief physician

Collected documents

Hospital	Quality policy Meeting minutes and records from 'network for quality coordinators' Process descriptions
Departments	Project documents, for instance: - Project descriptions (various versions) - Workshop material (photos of) posters, power-points etc.) - Reports, summaries etc. Meeting agendas and minutes 'Strategy' documents, for instance: - Annual work plans - Mandates for permanent working groups Lists of resources (e.g. available data)

APPENDIX 3: LIST OF ILLUSTRATIONS

TITLER I PH.D.SERIEN:

2004

1. Martin Grieger
Internet-based Electronic Marketplaces and Supply Chain Management

2. Thomas Basbøll
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A Philosophical Investigation

3. Morten Knudsen
Beslutningens vaklen
En systemteoretisk analyse of moderniseringen af et amtskommunalt sundhedsvæsen 1980-2000

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Organizing Consumer Innovation
A product development strategy that is based on online communities and allows some firms to benefit from a distributed process of innovation by consumers

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An empirical investigation of cognitive segmentation and effects of integrating a TM system into the translation process

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Sociale partnerskaber
Et socialkonstruktivistisk casestudie af partnerskabsaktørers virkelighedsopfattelse mellem identitet og legitimitet

7. Henriette Hallberg Thygesen
System Dynamics in Action

8. Carsten Mejer Plath
Strategisk Økonomistyring

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Knowledge Management as Internal Corporate Venturing
– a Field Study of the Rise and Fall of a Bottom-Up Process

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– på sporet af mønstre og samarbejde i danske forskningsintensive virksomheder

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Emerging Methods – An Interpretive Study of ISD Methods in Practice

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Om troværdige brand- og virksomhedsidentiteter i et retorisk og diskursteoretisk perspektiv

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Sprogpolitik og identitetsdannelse i flersprogede forbundsstater
Et komparativt studie af Schweiz og Canada

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Et studie af velfærdens organisering i perioden 1990-2003

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A.s erfaring
Om mellemværendets praktik i en transformation af mennesket og subjektiviteten

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The Constitution of Meaning – A Meaningful Constitution?
Legitimacy, identity, and public opinion in the debate on the future of Europe

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