(Re)descriptions of medical professional work: exploring accounting as a performative device within an emergency unit health-care context

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Abstract

Purpose – This article addresses issues of calculation and economization in contemporary public organizations. In particular, it investigates how choices of organizing emergency health-care have been affected by accounting as a performative device. Special attention has been paid to how accounting brings about performative consequences in shaping the medical profession and its context.

Design/methodology/approach – The article employs qualitative research methods and draws its analysis on empirical data from in-depth interviews at an emergency health-care unit in Sweden.

Findings – It is demonstrated how accounting, in the form of calculations of treatment time and number of patients, enables performative consequences for medical professional work. It is also demonstrated how the use of accounting engages (re)descriptions of practices and roles, creates accounts of patients, and helps to sustain such (re)descriptions. Accounting terms (such as efficiency and control) have been reframed into medical terminology (such as health-care quality and security), ensuring and retaining (re)described medical professional work in terms of practices and emerging roles.

Originality/value – This article contributes to (1) the literature on accounting practices within health-care contexts by demonstrating a case where the accounting ideas and practices of medical professionals are coexistent and interwoven and (2) the increasing body of literature focusing on accountingization by showing how emerging calculative technologies carry performative power over medical professional work through formative (re)descriptions.

Keywords Management accounting, Calculative practices, Performativity, Health care, accountingization, Financial incentives

Paper type Research paper

Introduction

The use of and reliance on numbers has virtually exploded in western democracies during the last couple of decades. Numbers are increasingly used in order to evaluate, prioritize and sanction certain types of action, not the least within the public sector. When numbers are coupled with organizational events, or when organizations or nations are constituted as economic actors, there arise instances of performativity, a sense of (false) objectivity (Kurunmäki *et al.*, 2016) through different calculative practices (Miller, 2001; Kurunmäki and Miller, 2006; Miller and Power, 2013). Such attempts of quantification and economization are commonly associated with New Public Management (Funck and Karlsson, 2019; Hood, 1991, 1995). We approach efforts of calculation and quantification as attempts at (re)describing ongoing organizational activities; an instance of accountingization (Hood, 1995; Power and

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Laughlin, 1992) in which professional work becomes manifested through numbers, statistics, diagrams and charts; a process by which organizational activities transforms into remunerable items. Our approach to accounting aligns with Miller and Power's (2013) definition in that it is an organizational practice which is "more than an instrumental and purely technical activity" (p. 557) and which "has a transformative or constitutive capacity to its economizing abilities" (p. 560). This means that (ac)counting enables the transformation of professional work into numbers (such as performance scales), numbers to entries of accounts (such as metrics) and the summation into statements (such as pay) (cf. Themsen and Skaerbaek, 2018).

In this article, we present a case of how the construction of such accounts are used in relation to medical professionals at a Swedish hospital. The case concerns a reform intended to reduce patients' waiting times in the emergency department by introducing a remuneration system directly connected to the number of discharged patients, a form of health-care process orientation (Kastberg and Siverbo, 2013). Empirically, this is referred to as *rapid teams* where financial incentives at an individual performance level are combined with professional judgment. In this article, we are especially interested in understanding how performance measurement and financial incentives enable the accountingization of medical professional work (Kurunmäki *et al.*, 2003; Kurunmäki *et al.*, 2016; Lapsley, 2007; Power and Laughlin, 1992; Hood, 1995; Sjögren and Fernler, 2019). We pay specific attention to how the use of accounting as a performative device has brought about consequences in the form of (re)describing medical professional work and its context. From this perspective, the case explicates the intersection of accounting and medical profession.

Much literature has focused on describing and analyzing how accounting has come to affect professional organizations (Evetts, 2009; Freidson, 2001; Hofstede, 1981). The medical profession is no exception (Carr and Beck, 2019). Accounting has been met with sly resistance in the context of sacred medical work (Lapsley, 2007; Power and Laughlin, 1992), as actors align accounting with value systems, sets of ideas, or domains in which it is being practiced (Hofstede, 1981; Kallio *et al.*, 2017). Accounting has been argued to transform contexts in which medical profession are practiced (Chua, 1995; Lowe and Doolin, 1999; Preston *et al.*, 1997). It has, e.g. affected medical professional contexts to be average by enforcing health standards and average costing systems (Llewellyn and Northcott, 2005) and standardized through categories and classifications (Gebreiter, 2017). Accounting has also been argued to transform medical professions into (new) hybrid roles by holding professionals liable for clinical budgets (Kurunmäki, 2004). Accounting has also been argued to discipline patients through employment of predetermined categories, related to certain accounts (Chua and Degeling, 1993).

In this article, we approach empirical contexts of how financial incentives are practiced through calculations (Kurunmäki *et al.*, 2003; Power and Laughlin, 1992). Drawing on the concepts of accountingization (Power and Laughlin, 1992) and performativity (Callon, 2007; MacKenzie, 2006), we formulate our research question as: *How does accounting as a performative device (re)describe medical professional work in hospitals?* This means approaching accounting as something that "does not just passively reflect an unproblematic economic reality; instead actively transforms existing representations of health organizations and their activities" (Chua, 1995, p. 137). Therefore, this article proposes to understand how accounting as a performative device (re)describes medical professional work in terms of practices and emerging roles. The article thereby contributes to existing literature concerning (1) the intersection of health-care contexts and accounting and (2) the performativity of accounting. We do this by demonstrating how accounting and medical professional practices are not necessarily in conflict or antagonistic (cf. Lowe and Doolin, 1999; Carr and Beck, 2019) but rather coexistent and interwoven (Kurunmäki, 2004). The embeddedness of accounting in professional practice provides our second contribution: the demonstration of how emerging calculative technologies carry performative power over

medical professional work through formative (re)descriptions (Chua and Degeling, 1993; Chua, 1995; Sjögren; Fernler, 2019).

In the following section, we discuss the two main theoretical concepts engaged in this article: accountingization and performativity. We delineate how these concepts relate to each other in terms of theoretical aspects, and explain the implications for this study. In our methodological section, we explain how, when and where we have collected empirical data, and how it has been analyzed. We then present our analysis and end the article with some concluding remarks.

Accounting as a performative device

In this paper, we understand accounting to be neither neutral nor passive, but as having a power, capacity and agency to actively impact medical professional work contexts in a number of ways. From this perspective, accounting performatively and continuously shapes different contexts. In literature this has been defined as a performative turn (Vosselman, 2013). This means that accounting is understood to have agency, which brings about (performative) consequences in professional contexts. Accounting as a performative device is then fundamentally different from understanding it as a functional technology for reporting and representing daily organizational activities (Revellino and Mouritsen, 2015).

Stemming from sociology of economics, Callon (1998) argues that (economic) theories do not explain what is empirically observed, but rather perform on individuals in order to shape them into *homo oeconomicus*. This means that theoretical assertions function prescriptively, shaping actors' and organizations' behavior. The use of financial incentives have, e.g. been argued to be "inspired by the economic theories and assumptions about human or organizational behaviours causing these behaviours to fit the theory's prediction" (Callon, 2007, p. 324). MacKenzie (2006) shows that the Black-Scholes-Merton formula is beyond theoretical argument, but inevitably shapes the manner in which financial market actors behave. By expending their analysis from discourse to practice, Callon (1998, 2007) and MacKenzie (2006) argue that performativity can be found within *in situ* socio-material arrangements. This means that performativity emerges through human and non-human interaction in everyday (organizational) activities (Latour, 2005). Such socio-material arrangements have the agency and calculative capacity to perform their subjects (Callon, 2007). Performativity, then, emerges in the entanglement of knowledge, institutions, and practices (Boldyrev and Svetlova, 2016). This means that accounting (a calculative technology) is performative through its enactment in socio-material arrangements (Callon, 1998; Latour, 2005) as it unfolds in professional practices (Ahrens and Chapman, 2007).

Accounting as a performative device is a central theme in current performativity discussions (Busco and Quattrone, 2018; Corvellec *et al.*, 2018; Power, 2015; Revellino and Mouritsen, 2015; Themsen and Skaerbaek, 2018; Vosselman, 2013; Fırtın and Kastberg, 2020). It has been demonstrated to entail a construction of facts (Chua, 1995), implying (re) descriptions rather than merely representing organizational activities (Revellino and Mouritsen, 2015). Accounting has also been demonstrated as performative in that "the determination of *true* information and communication of economic *facts* are at the same time their constructions as facts" (Power and Laughlin, 1992, pp. 116–117). This has been defined as accountingization (Hood, 1995; Power and Laughlin, 1992), resembling the premise of the performativity thesis (Callon, 1998, 2007; MacKenzie, 2006). Accountingization is performative as it shapes and constructs organizations, activities, and actors. Drawing their argument from health-care sector reforms, Power and Laughlin (1992) take a critical stance towards the diffusion of an accounting language, arguing that it is an ongoing emphasis of economic thinking within the public sector (cf. Hood, 1991, 1995). Although the idea of accountingization has been criticized (Kurunmäki *et al.*, 2003; Lapsley, 2007), it has also been argued to threaten the very nature of health-care contexts (Chua, 1995; Lowe and

Doolin, 1999; Preston *et al.*, 1997). Numbers and calculations are inherently perceived as neutral or objective means by which accountability can be achieved, emphasizing the usefulness of accounting in many different contexts. Miller and Power (2013) have a similar definition of accounting, arguing that it, much like economic theories (Callon, 1998), directs actors and organizations to behave and do things in a specific manner. Power (2015) illustrates this with a case where social impact accounting is introduced in a higher education institution, and argues that the use of accounting does not primarily show what employees do, rather it creates accountable objects.

In this paper we treat accounting as a performative device which (re)describes actors and organizations in a way that can be accounted for. In the context of medical professional work, we may expect contexts of work to not only be counted, but to be shaped in a new way. This is what we refer to as (re)descriptions, entailing a process of shaping or affecting actors' and organizations' underpinning rationalization of their professional work context. Although professional work may indeed be problematic to quantify and count (Kurunmäki *et al.*, 2003), accountingization will set boundaries for accountable actions (Sjögren and Fernler, 2019). This means that accounting as a performative device can help to (re)describe what is accounted for as good or bad professional work.

Methodology

The purpose of the study is to understand how accounting as a performative device (re) describes medical professional work in terms of practices and emerging roles. Following this, we have adopted a case-study approach (Flyvbjerg, 2006) in order to demonstrate how accounting as a performative device brings about consequences for medical profession work. The selection of case is stratified in Flyvbjerg's (2006) terms, in that the selection aims to demonstrate the intersection between accounting and medical profession.

Our case is the reform of re-organizing the emergency unit in a major university hospital in Sweden. Empirical data were gathered from three different contexts at the same hospital, which we refer to as sites A, B and C. Site A is an emergency department at the university hospital where the reform was introduced in the first place. Site B is another emergency department at the same hospital. It has certain organizational connections to Site A, but not the financial incentives. Site C, finally, is organizationally positioned between the university hospital and primary health clinics, where the physicians can work extra to earn additional income. In the following section, we will describe these sites in more detail.

This article draws on a qualitative study (Eisenhardt and Graebner, 2007; Silverman, 2013). Empirical data have been gathered from interviews and documents during 2018 and 2019. We conducted interviews with medical professionals and management. Medical professionals include emergency physicians, general practitioners, and nursing assistants. From management, we have interviewed individuals responsible for emergency units, human resources managers responsible for handling financial compensation, and regional administrators responsible for budgeting. We also interviewed union representatives for physicians. For the selection of respondents, we have used a snowballing method (Kvale and Brinkmann, 2009). This means that the first set of interviews in Site A resulted in identifying other relevant contexts (Sites B and C), and more actors involved in the reform. By interviewing different actors at work within these sites, we gained an understanding not only of how these actors have different roles in the reform, but also how accounting as a performative device (re) describes medical professional work in terms of practice and emerging roles.

Table 1 summarizes the range of respondents. The interviews, ranging from 50 to 90 min in duration, were conducted in Swedish, recorded digitally and transcribed verbatim. The interviews were held in a semi-structured manner (Kvale, 2006) guided by *á priori* selected themes touching upon professional context and accounting. These themes included areas such as professional background, organizational and work context in the current unit, and

Interviewee	Location	Profession/Position
1	Site A	Specialist physician, unit manager
2	Site A	Emergency physician
3	Site A	Physician, regional administration coordinator
4	Site B	Emergency physician
5	Site B	Emergency physician
6	Site C	Specialist nurse, emergency clinic unit manager
7	Site C	Specialist nurse, on-call-clinic unit manager
8	Site C	Specialist nurse, on-call-clinic unit manager
9	Administration	Chief strategist, region administration
10	Administration	Physician, regional manager for primary care units
11	Administration	HR manager
12	Trade union	Physician, union representative

Table 1.
The distribution of interviewees

experiences from previous performance appraisals in addition to the current reform. Although the same guidelines were used during the interviews, we have not limited conversations to only these. New themes, such as patient categories, salary structures, work in different sites (Site B and C), and professional group (nursing assistants and administrators), emerged during the interviews, which has affected our understandings and the succeeding interviews. By keeping conversations open, the interviews have first and foremost been viewed as informative conversations between researcher(s) and expert (Alvesson, 2003) granting the respondent freedom for reflections (Kvale, 2006).

In addition to the interviews, we collected two different sets of documents. First, we received internal documents from our respondents. These documents include collective agreements, journal templates, posters, and PowerPoint slides used for internal training of employees in the emergency unit. Internal documents were used to understand the setting of emergency care, and provided background information on the treatment process. Second, we gathered external documents publicly available online. These comprise of local and national media coverage about the reform at the university hospital together with debate articles on the websites of medical professional associations and unions. External documents were used to understand collegial discussions regarding the reform, and supported our preparations for the interviews.

The empirical data was analyzed iteratively between coding and gathering more data. The analysis followed a path from empirically bounded first-level categories to theory-laden abstractions (Martin and Turner, 1986). For first-level categories, analysis focused on understanding the context of the emergency unit, the treatment process, and the changes that the reform brought about. During this initial phase, we paid special interest to emerging concepts relating to the purpose of the paper: e.g. faster treatment, patient matching, medical experience, financial incentives, scarcity, and loyalty. These first-level categories informed subsequent interviews. During the second phase of analysis, first-level categories were (re) interpreted in relation to the theoretical framework. This phase enabled us to reframe the empirical concepts into theory-laden categories such as calculative practice and medical professional work. This process led to a connection of empirical first level categories to theory-laden abstractions such as accountingization (Hood, 1995; Power and Laughlin, 1992) and performativity (Callon, 2007; MacKenzie, 2006). These categories are the bases for our empirical discussions, and are presented in the findings section.

The context of the study

The University Hospital is composed of five different hospitals, of which four have emergency departments. Figure 1 illustrates this setting. Our research sites are the

emergency departments in the Main Hospital (Site A), East Hospital (Site B), and the emergency clinic at East Hospital (Site C). In this article, we focus on a specific organizational reform: the introduction of *Rapid Teams (RT)* at an emergency unit, with the purpose to handle situations of patient crowding. Patient crowding refers to situations where the number of patients becomes so large that the quality of health-care suffers (Carter *et al.*, 2014; Pines *et al.*, 2008)

The introduction of RT should be understood within the wider scope of triage at the emergency units. That is, the sorting and prioritization of patients. The working routine at Site A is composed of four different teams which all have a designated color: red, orange, yellow, and green. Having been sorted by an emergency nurse, patients are transferred to one of these teams depending on the seriousness of their health condition. The colors indicate prioritization: red and orange patients are deemed critical, whereas yellow and green patients are in less danger. Through this process, the emergency unit can efficiently organize a suitable response that takes into consideration medical status.

The introduction of RT is a way of organizing work within the emergency unit, that proposes to reduce the total number of patients waiting for treatment at the emergency unit. RT can to some extent be understood as a fifth team at the emergency unit but organized outside of the ordinary triage system. Rather than receiving its own patients, RT absorbs patients from the green and yellow groups by focusing on patients that should be relatively easy to diagnose in order to reduce workload for ordinary teams. Figure 2 illustrates the flow of patients and the RT's position relative to other teams.

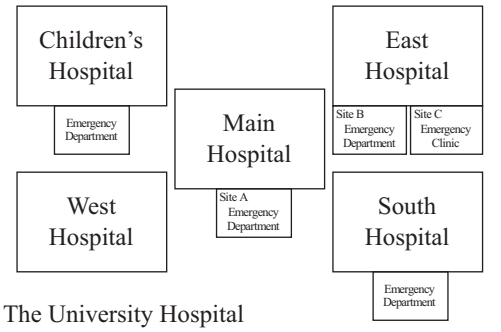

Figure 1.
Different emergency departments and locations of research sites

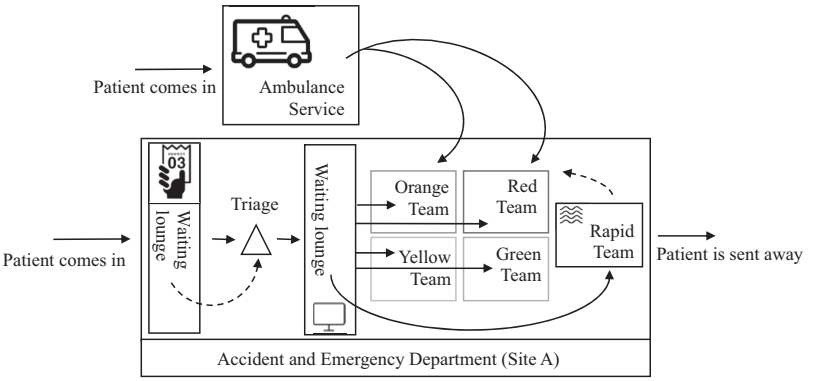

Figure 2.
The color groups and Rapid Team in Site A

The RT is staffed by one physician who freely chooses to work extra hours and an assistant nurse working within his or her regular work schedule. The physician in RT receives extra payment per work hour in this team, and per patient whom s/he sends to another team, or health department, or diagnoses and sends home. Connected to this work we find different levels of compensation. Payment is higher for weekends than weekdays, and sending patients home results in higher payment than sending them to the emergency units of another health team at the hospital. Physicians working an extra 8-h shift, with approximately 20 patients during this shift, receive a salary compensation of between SEK 7000 and 11,000 (roughly EUR 600–1,000) before taxes, which amounts to approximately 25% of an average monthly salary for an emergency unit physician. This means that the incentives are on higher levels than other incentives in the Swedish health-care sector, which are found to be 1 to 4% of medical practitioner's monthly salary (Ellegård *et al.*, 2018; Ödesjö *et al.*, 2015).

Site B has a similar way of organizing work. There are four teams (two medical and two surgical), and color prioritization; however, instead of a nurse, it is a physician who triages the patients (here defined as *primary team assessment*) and decides upon sending the patient to the emergency teams with a color of prioritization. Site B has also been challenged with similar crowding problems as Site A, but produced a slightly different organizational solution. Rather than organizing an RT, Site B has established an *emergency clinic* (Site C: Figure 3 illustrates the context in Sites B and C) in collaboration with primary care. This means that Site C is organized as a primary care unit under another administration, but is mainly staffed by physicians from Site B. The difference from Site A is that Site C has chosen not to allocate financial incentives as described above. However, physicians are still remunerated as they receive a special extra on-call duty which is incorporated as an extra income in addition to ordinary monthly salary.

For the purpose of this article, our analysis focuses on how activities become calculable and are transformed into components of financial incentives, and how accounting as a performative device (re)describes medical professional work. As such, the differences between Sites A, B and C provide a case for studying accounting as a performative device (Callon, 2007; MacKenzie, 2006; Revellino and Mouritsen, 2015).

Intersections between accounting and medical professional work

In the following section, we outline our findings and analysis concerning the implementation of an RT function at the three sites. As described previously, the reform has two interconnected sides (1) forming of the RT, and (2) allocation of financial incentives. We present

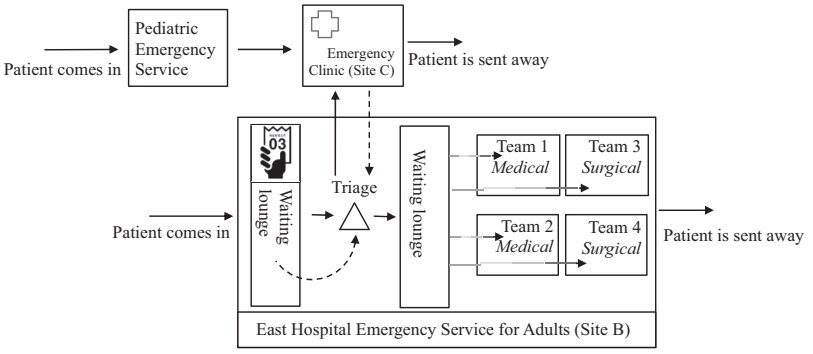

Figure 3.
The relation between Site B and C

our findings in relation to how accounting brings about (performative) consequences for the undertaking of medical professional work as it unfolds in practice. We will demonstrate how the seemingly different reforms in Sites A, B and C have similarities that lie beyond the financial incentives. This will lead us to analyze different meanings, understandings and (re) descriptions that accounting as a performative device brings about. Accounting is embedded in the reform, as it necessitates calculations of time as well as counting and categorizing patients (*e.g.* the color groups, cf. Sjögren and Fernler, 2019). The reform is about reporting generated accounting information to its users in both local (manager) and national contexts (managers at county administration). At the same time, it brings about performative consequences: The reform has results in (1) (re)descriptions of medical professionals, (2) the creation of accounts for patients and (3) sustaining and materializing (re)descriptions.

(Re)descriptions of medical professionals

Since the RT way of working is accomplished between the (1) physician, (2) patient and (3) nursing assistant, we will start by presenting how accounting performatively (re)describes roles and expectations in practices. Accounting has affected the manner in which these actors (re)negotiate terms of position, roles and functions internally. It has also affected the shapes of different profiles. One prominent aspect of how accounting shapes physician's professional work can be found in clinical samples and tests. While the physicians explain that there is limited space for analytical samples in the context of emergency department in general, the work in RT has a dramatizing aspect in the clinical tests in its connection with calculating time for patients.

> In an emergency department, you should only do tests that make clinical sense. For example, whether the patient's vital blood pressure, blood values are normal or not. These tests would tell me how bad the situation is, so that I can see that the patient is quite good. And in many cases, I do not take any samples from the patients that I meet in RT, because for those patients, it is enough to do an EKG or actually only to monitor their blood pressure and make a clinical judgment, instead. Putting the exact boundary of "I need this sample" makes it go faster. However, in case difficult analytical samples are needed, we have to send the patient away, it is not something required by RT. (Physician 2, Site B)

Calculations of time/patient have performative consequences for how physicians work. Medical samples, tests and analyses that are directly related to the clinical need have been (re) described into an account of time. The idea of reducing time for patients is presented as an important factor, equal to that of clinical need. In order to reduce the time interval, physicians avoid undertaking this kind of medical work. As time is calculated and accounted for, it also translates into ideas of efficiency. This means that the medical profession (clinical needs) becomes infused by ideas about accounting (efficiency). As physicians accept such (re) descriptions, they internalize accounting ideas in everyday practice. Accounting terms have been observed as becoming predominant in the medical context (Lowe and Doolin, 1999) and emerging in the form of time/patient calculation (Chua, 1995). Accounting has not (ac)counted for medical work performed in this context, but has performatively transformed the representations of the emergency unit (Callon, 2007; Chua, 1995).

In general, physicians have described that their work at the emergency department takes place in a context that requires clinical experience. The clinical experience has been motivated in terms of being able to take decisions such as whether to send a patient home or to another clinic, while using limited samples and tests because of time considerations. This observation is another aspect of the relationship between time/patient accounts and medical professional work. The RT has been portrayed as requiring clinical experience in an emergency department.

> It is a very annoying situation in emergency, being alone with a lot of recently graduated physicians without any clinical experience at all. They work slowly, and this causes the stress that I will carry whole emergency department on my shoulders looking up the flow, whether the patients wait too long, and it gets bad without anyone noticing it. (Physician 2, Site B)

The organization of professional work relates to working speed, which relates to time/patient. Medical activities are judged on the basis of taking a lot of or a little time, functioning as an indication of *good* or *bad* work. An experienced physician takes the lead in the department when working with inexperienced physicians and becomes responsible for the situation in the team as well as in the waiting room. Therefore, in the context of the emergency department, clinical experience has to do with (1) the speed at which physicians work and (2) the patients' waiting times. Within the context of RT, these two factors became extra salient.

> . . .One can be either quick and sloppy, or quick but still accurate. The more experience you have, the more patients you will get and still be careful. But if you are new, then you have to cut corners in order to be quick. So, I do not think the RT is suitable for those who are completely new to the profession because I think it can be dangerous for the patients. It is usually so that if you do not know a condition or illness, you have to sit and look up your books, or on the internet. But if you know a symptom and disease, then you can talk to the patient directly without trying to understand things. Then it goes faster. (Physician 1, Site A)

It is suggested that reliance on calculations of time/patient could be hazardous for patients, when unexperienced physicians are organized in RT. Accounting terms thus come into play to (re)describe how professional work should be undertaken in terms of (time/patient) calculations, demonstrating another performative consequence. The experience has been a (re)description in accounting terms, such as time/patient calculations, however, not in terms of professional expertise. This implies that professional experience and norms may function as a safeguard for the performative aspects of accounting, but it also indicates how accounting is internalized in professional work. The term *efficiency* finds its counterpart in *health security*. Calculations of time/patient are therefore a central theme when working within RT. Time accounts, coupled with limited samples and clinical analyses, require physicians to have general knowledge of a variety of symptoms and diseases.

Similar observations have been made for nursing assistants. Nursing assistants are important actors in making accounting become part of medical professional work. One instance that especially highlights this concerns the categorization of patients. It is nursing assistants who collect patients from triage to RT, doing a sorting job for the physician at the RT. This means that patients are (re)described into accounts of patients. This is a key factor for increasing efficiency within the unit.

> The nursing assistant chooses patients out there [waiting room], goes and looks and then selects patients. So, it is the triage that chooses patients. And depending on what expertise you have, you can say that "I also want surgery patients." But if someone's a specialist in internal medicine, they might not want patients with abdominal pain. But I, as an emergency doctor, would like to take care of the patients with abdominal pain or those who have hit their head. (Physician 1, Site A)

By (re)describing patients into accounts and connecting efficiency parameters such as time/patient, physicians can focus on making medical decisions. In addition, nursing assistants undertake preparations for the physician, such as physical environment, samples and tests. The (re)descriptions of patients into accounts from a medical professional work context indicate a (re)description of nursing assistants' roles. The selection of the right patient at the right time demonstrates how accounting functions as a performative part of professional work. This was noticeable in another interview:

> . . .In the beginning, I want to see who the nursing assistant is. If it's someone that I've worked with before and understood to be active or if it's someone that I kind of need to work on a bit. Because some

> nursing assistants are just fantastic, they just, "Well, here you have the next patient that you are looking for." Because people come all the time and slide in between different teams, so it takes time to get the samples, evaluate the tests, and order the x-ray. To prepare these things can take up to 6 hours. But if you have a good nursing assistant, you can have these things ready, they make things easier for you. Otherwise you are in a position like "Okay, here is someone coming from triage, but I should also go around and look if there are any similar patients to pick." (Physician 2, Site B)

Nursing assistants are expected to have an understanding of which patients are suitable for RT, what kind of patients the physician requires or wants, and experience of working with the physician. We find that physicians have great expectations on the roles of nursing assistants, and that these roles are influenced by accounting. Accounting comes into performative play as nursing assistants are expected to cooperate with a general reduction of time consumption.

> Whenever the nursing assistant understands "Oh, here we have a patient with problems at home, here comes a different case, a social problematic situation that we do not take any responsibility at all for", then they do not continue with that patient. Such patients should be handed over to the other teams, because in here [RT] we have a process that is much more resource demanding. (Manager 1, Site A)

From a systems perspective, we find that nursing assistants and patients are connected in the organizing of professional work at the RT. Accounting becomes existent within the medical professional work context as physicians and nursing assistants perform their daily activities in terms of these (re)descriptions. Accounting as a performative device becomes noticeable when medical professional work is framed by calculations of time/patient as basis for financial incentives. When accounting (efficiency) and medical professional work (health quality and security) intersect, accountingization asserts a (re)description of roles, shaping profiles and expectations related to the actors involved in organizing professional work at the RT (cf. Power and Laughlin, 1992).

Creation of patient accounts

In addition to accountingization amongst physicians and nursing assistants, we have made similar observations with regard to patients. A noticeable aspect in terms of patients is their numbers. In our case, the emergency department has, historically, struggled with patient crowding.

> We call them Team 1 for red, Team 2 for orange, Team 3 for yellow, and Team 4 for green patients. And the purpose of RT is to reduce the total number of patients in emergency. Because we know that there are many patients on the way to emergency, and faced with this phenomenon in the emergency care called "crowding". This is an English term which means in short that there are many patients in the emergency under treatment. This makes everything take a long time. Quality and security suffer in everything that takes a long time. And only because there are too many patients. So, we have RT that aims only at keeping the number of patients down. (Manager 1, Site A)

The implementation of RT as a complement to the other (ordinary) teams was undertaken in order reduce patient crowding and to secure high levels of health-care quality and security. This illustrates the intersection of accounting and medical professional work. By classifying and categorizing patients in different groups, then prioritizing these groups in terms of numbers, accounts are created. In this way, professional work integrates accounting as part of the medical professional work norm. This is also evident when considering that lower level prioritizations (yellow and green patients) can be transferred to the RT function for speedier expedition and discharge. This observation resembles what Chua and Degeling (1993) refer to as disciplining the patient, and how Chua (1995) demonstrates that patients were viewed in a category constituting a production line (diagnose group). In our case, the enabling of accounting as a performative device highlights certain consequence: The term *efficiency*

again finds itself a counterpart in medical professional work as *health quality*. RT requires (yellow and green sorted) patients to be easier to diagnose and treatment.

> . . .I think the patients who come here and end up in RT could instead have been taken care of in primary health-care. In primary care, it is expected that we will take four patients per hour, one per 15 minutes. That is impossible here because it takes longer. Perhaps if you have a maximum of three patients per hour, then we would have 20 minutes per patient. But the patients expect more than that when they come to the hospital compared to what is expected when they come to the health-care center. When they come to the emergency, they expect tests to be taken, and that they will not have to wait for very long, that we will talk to them, and things like that. (Physician 1, Site A)

In this respect, the time/patient accounts are again constructed as a prominent aspect, demonstrating how accounting as a performative device (re)describes professional work in terms of practices and emerging roles. These findings relate to MacKenzie's (2006) observation on stock markets: the Black-Sholes-Merton formula does not explain how stock markets function, but economic actors shape their actions so that they fit the formula. Time/patient accounts do not in themselves reflect the context of emergency health-care, rather they (re)describe practices and roles associated with medical professional work as the forming of accounts for patients is undertaken. This leads to a conflict between speed and quality. On the one hand, patients should be *easy cases* that can be handled quickly. On the other hand, the requirements and expectations of being at a hospital must be complied with. Such a conflict was evident in the descriptions of another respondent.

> It is the patients who have very much chronic troubles, a lot of worry and anxiety about their diseases that take the longest. They do not understand that we do not do the examinations in the emergency. However, they come here because they believe that they might have cancer, and they had done a lot of investigations at the health-center, googled a lot and found different things, but they do not understand the clinical implications. However, they just hear, read a lot of weird words that they do not understand, and become terrified by this. And they read a lot of stories, and all sorts of things on the internet and get very afraid. They want to do all kinds of tests and then most of my time goes away to sit down and just explain to them why what they have read is not relevant, or why it does not apply to the patient. And just that it is simply their anxiety. (Physician 2, Site B)

In addition to the *easy* patients, an account for *anxious* patients emerged. Although being an *easy case*, *anxious* patients do not fit with the RT logic insofar as meeting their expectations takes more time than the core dimension of the physician's work to diagnose and undertake treatment. A similar example was observed for another account: *old patients*.

> It is often the old patients with long lists of medicines that take the longest. They come with unclear problems which need to be identified. Such patients take a long time because the lists of medicines take such a long time to register in the computer, and the work becomes more about administration. Sometimes you need to call additional people in the clinic and ask "How should I register this?" And during the night shifts, for example, people are usually not in the clinics. So, it gets messy. (Physician 3, Site B)

We argue that the creation of different accounts of patients demonstrates how accounting as a performative device is disseminated within the organizational context. The categorization of patients, as described above, is engaged in order to organize medical professional work. From this perspective, terms such as triage sorting and different patient types are not accounting *per se* as they emerge from the medical professional context. However, the case provides examples of how such medical terms were (re)described through accounting. The *anxious patient* does not merely correspond to the fact that the patient is anxious (in medical terms) but to a calculation of resources. Similar observations are made for similar categories, e.g. *triage-colored patient*, *easy patient*, *old patient* and *complex patient with long medicine lists*. The (re)descriptions of medical terms into relevant calculative categories allow for a

calculation of patient accounts and a connection with financial incentives. In other words, accounting has come to embed itself within medical terms, allowing for a (re)description into patient/incentive calculations and transforming medical terms into accounting terms (Miller and Power, 2013). The use of labels such as *easy*, *anxious* or *old* patients can be understood as the formulation of accounts, relating to strain on resources as well as medical judgments. This means that accounting penetrates medical professional work as such accounts are performed. The performative consequences are seen as an alteration of categories, wherein patients are defined not in medical terms, but in terms of accounts and accounting. In sum, the calculations of time/patient require certain patient profiles to be fitted within the organizing principles of medical professional work. In a similar way, accounting exercises performativity on medical professionals in a way that they need to have certain properties, such as clinical experience, self-dependency and courage to take decisions with limited information.

Sustaining the (re)descriptions

The second side of the reform concerns the introduction of financial incentives. The calculations of such incentives are based on (1) the number of working hours and (2) the number of discharged patients. The actual incentives are also different for weekdays (lower) and weekends (higher), and whether physicians send patients to other teams (lower) or closes the case and discharges the patients (higher).

> The compensation looks like this. You get 350 Crowns on weekdays and 500 Crowns on weekends per hour in your base salary. That is a fixed compensation. You work 4 or 8 hours in the team. It starts at 13:00, so you can go at 17:00 if you want, or you can start at 17:00 to 21:00. And then you can take the whole shift if you want. It is totally voluntary. That is the fixed compensation, and then you also get paid per patient. If you finish with a patient, which is what we should do, you get 350 Crowns per patient. If you have to hand them over, you should do it as quickly as possible so that the other teams can take care of the patient, then you get 150 Crowns per patient. (Manager 1, Site A)

The medical professionals perform accounting as they report how many hours they have worked and how many patients they have dealt with as a basis for the calculation of financial incentives. Determining the correct incentive level requires a match for correct accounts – which is the day/work hour and treatment process. One accounting tool (incentives) is affected by another one (the categories of day and work hours). Additionally, as the system rewards extra and voluntary work done at the emergency unit, financial incentives are found to be sustaining the (re)descriptions of roles and functions of the medical professionals. This is noticeable as financial incentives are found to be tightly linked to the number of hours worked and the number of patients. Moreover, we find that treating patients is valued differently, depending on when and how it is done. The main argument is that the RT supports the general aim of reducing patient crowding, but we find that the incentives carry a second implication: it is a way of correcting low salaries. According to physicians, administrators and unions, salary levels for physicians in university hospitals are below average in Sweden.

> So, wage setting has partly to do with demand. What is hardest to get. It has been easier to recruit in the hospitals, so they get lower wages. This has been more difficult in primary care somewhere in the middle of country, so they get higher salaries. A second factor has been that primary care has been increasingly in focus in recent years and prioritized, ending up with higher salaries there than on the hospital side. (Administrator 1)

As described by the administrator, there are different salary levels between the university hospital and primary health-care units within the same county. Additionally, the lower salary levels in the county have been described as being related to the equilibrium of supply and demand. Such market dynamics have also been evident in the descriptions provided by union representatives.

> There are different salaries because they do not have the same shortage. There are many who want to live and work as a doctor here. This can hold down wages. It is harder to find a doctor who wants to work in a small city, and stay there, then you have to have higher payments in order to make them work there. So, it is market forces that affect it. That is why we get criticism as a trade union that we are bad at negotiating wages, but as I said, there are too many people demanding to work here, and that governs, market logic ... We want to increase the salaries here with the same levels in the neighboring counties and other university hospitals. (Union representative)

Incentives are therefore supported collegially as well as administratively. They have been motivated as a way to fill the gap of lower wage differentials in local contexts in comparison with national ones. While incentives sustain (re)descriptions, they have also been sustained in terms of wage levels. Therefore, the sustaining effect brought about through financial incentives may itself be sustained by a perceived lower wage level within the emergency unit. Incentives that are linked to the RT can therefore to some degree be understood as attempts to increase wages locally at the hospital. In a way, this evens out the gap between physicians working in environments characterized by lower demand.

> I think that RT accomplishes its function. I think it is a good complement for how you can increase your salary. You can increase your salary by working for the same employer, without having to leave and work in another county. (Physician 2, Site B)

Physicians' incentives are a way of correcting such perceived unfairness. This may also be argued to signal an acceptance and sustainment of the (re)descriptions brought about through accounting as a performative device. The time/patient account is sustained by the incentive account, which is considered to be *fair*. Financial incentives are also interrelated with loyalty. Physicians' relatively low salary level is used as a factor for offering individual reimbursement increase as well as binding the individuals to the local organizational context.

> . . .I have worked as locum tenens, then you get paid per hour. We call this "medicals at relay race". It is that you work as a consultant. Then, one goes through a recruitment company, or via your own limited liability company. I have one. You can go directly through large recruitment companies, apply as a job, and they outsource. Then you go away and work there for a limited amount of time. If there is a need for physician in Northern Sweden or somewhere else for two weeks, then you go there for two weeks and you get a determined hourly rate. And they pay higher salaries than here. If you go through your own limited company, then it is favorable because then you can take a dividend instead of salary. That is what I do to earn money as locum tenens. The salaries here as specialist physicians are the worst in Sweden. (Physician 3, Site B)

In order to increase salaries, physicians get secondary employment via recruitment companies, and/or their own private consulting companies. From this perspective, financial incentives are described as a solution to keep employees locally, adding another dimension to how accounting brings about performative consequences. While financial incentives sustain the continuity for the RT work and the (re)descriptions of medical context, they also *loyalize* the physician in the university hospital by providing extra monetary resources, thereby reducing the risk of having the physician work for another health-care organization outside the university hospital. For physicians, the construct of financial incentive creates a motivation to stay at the hospital, even though their ordinary salaries are below average. For management, however, the financial incentives are described as cost effective:

> . . . if someone needs to be here and work overtime, or has been at work, there we also have another compensation. Then you get double-year compensation. It departs from the collective agreement on on-call duties and is a double compensation from the basic salary. And it is national and mandatory, and a more expensive option. (Manager 1, Site A)

In a similar fashion to how medical work becomes (re)described into accounting, we find that financial reimbursement for working over-time like these become transformed into what can

be understood as a cost-benefit analysis. In both examples, we find that the financial incentives are validated through economic terms. Performance is calculated and then valued in financial terms. In this way, individual performance appraisals become central when judging whether their work has been *good* or *bad*. The financial incentives have different meanings and vary from the market dynamics, fairness, loyalty and cost effectiveness in terms actors' positions. The performative consequence of accounting (in the form of RT) relates to other accounting forms (incentives), which relates to further accounting terms (cost effectiveness). What we observe is that the reform has two separate but interdependent functions. While it is a way to organize medical professional work, it is also an instigation of financial incentives. In the connection of both working hours and numbers of patients, time/patient accounts become important. We observe how accounting as a performative device (re)describes properties and expectations from the involved actors, while at the same time, how the incentives have different meanings for these actors.

Although the underpinning rationale of reform was based in a very real organizational problem of patient overcrowding, we have demonstrated how it has brought about accountingization that has (re)described medical professional work within the emergency unit. The reforms have made visible intersections between accounting and professional work. The term *efficiency* has found its counterparts with other terms such as health quality and patient security. We have also observed the efficient way to sort patients, understood as the creations of patient accounts. Financial incentives have been introduced and been constructed as efficient, as they are associated with fairness, loyalty, and cost-efficiency. Accounting as a performative device has (re)described medical professional work (Callon, 2007) and accountingization emerges as the medical professionals practice work within the frames of such (re)descriptions (Power and Laughlin, 1992).

Discussions and concluding remarks

This article concerns the intersection between accounting and medical professional work. More specifically, we address issues of how accounting as a performative device (re)describes medical professional work in terms of practices and emerging roles. This has been demonstrated by showing how accounting has come into being through medical professionals such as physicians and nursing assistants. It has also been demonstrated how managers perform daily activities that sustain these emerged (re)descriptions. We have observed that the intersection between accounting and medical professional work has not been resisted (cf. Llewellyn and Northcott, 2005; Kurunmäki, 2004) within the medical context. Instead, we have observed an acceptance for accounting both from management and medical professionals (Kurunmäki, 2004). We have also demonstrated how (re)descriptions of practices and roles have become embedded (Gebreiter, 2017) in the emergency unit.

Accounting makes physicians conduct simpler medical tests, requiring them to be experienced in the emergency department, whereas nursing assistants are constructed as a calculative threshold for physicians. Due to accounting, they are expected to have an understanding in selecting patients who are also required to be *easy cases*; without complicated diagnoses or other *time-consuming* circumstances. The transformation of medical terms such as *anxious* or *old* patients into accounting terms such as *time per patient*, *number of patients*, and finally to the calculation of financial incentives relates to the construction of patient accounts that highlights the situations. Patients that consume time are (re)described as *burdens*, not in medical terms but in accounting terms. Accounting has brought about (re)descriptions of physicians, patients and nursing assistants in a certain way. We argue that these are related to accounting as a performative device, having two interrelated meanings: (1) accounting shapes and is shaped by practice (Revellino and Mouritsen, 2015; Themsen; Skaerbaek, 2018), and (2) accounting comes into being as it unfolds in practice (Ahrens and Chapman, 2007).

Reorganizing the emergency unit by introducing *rapid teams* should be understood as a context that has facilitated the unfolding of the accounting practice. It has not only (re) described medical professional work and constructed accounts of patients, but has also sustained continuity efforts by bringing more accounting into play. The introduction and amplification of time/patient accounts came to be related to health-care quality, thus supporting the use of accounting within the professional context. Treating more patients in less time than before was advocated to be a quality assurance as it reduced strain on other teams. Accounting in this sense was used in order to reinforce judgements historically retained within the medical professional work context. Tackling, e.g. patient crowding meant embracing the intersection between accounting and medical professional work. The construction of patients' accounts can be understood as accounting as a performative device at work. The triage transfers patients into an accounting system, then transforms them to numbers that can be used for prioritization. As discussed previously, the teams are also referred to in quantitative terms. Team *number one* is given higher priority in a system of order. Moreover, the use of crowding *per se* is a sign of how actors have come to internalize accounting, meaning that the actual number of patients within a given physical space carries performative consequences for medical professional work. The use of RT is primarily to reduce the number of patients. This means that it can be understood as an attempt of organizing through numbers. A highly efficient RT – assuming high levels of put-through and patients leaving the sites – will generate lower ratios of patients within the facility. Again, performativity of accounting is apparent in the medical profession through the making of patient accounts, where numbers of patient and prioritization are interconnected with the treatment of patients. Once the patient accounts are created, they are accepted as the true representation of the patients. Therefore, accounting as a performative device (re)describes the patient in the medical professional context, as it has brought about the matching of *correct patient* (as calculated by time factor) with the *correct account* (by color groups or the RT).

Accounting in the form of RT has brought about more accounting in the form of financial incentives. In order to sustain the (re)descriptions of practices and emerging roles, financial incentives were used. We have demonstrated how these financial incentives have been described in terms of *hours* and the number of *treated patients*. Physicians hand in physical papers where they account for both of these factors, turning medical activities into materialized accounting reports of professional work. Blurry actions that are inherent in the profession are turned into objective, believable and accountable actions (Sjögren and Fernler, 2019). When activities are represented in accounting form, they are transformed into objects that can be remunerated. In this sense, financial incentives are double-folded: Firstly, medical professional work becomes calculable which becomes remunerable which becomes materialized. This means an accountingization of professional work (Power and Laughlin, 1992). Secondly, accounting brings about more accounting to sustain itself. This was demonstrated by the introduction of RT paired by financial incentives. We have observed that financial incentives have not only sustained the (re)descriptions of the medical context, but also *loyalize* physicians and *economize* the medical context with cost/benefit calculations for managers. These incentives, in turn, need more accounting to become useable. The use of work hours on weekdays and/or weekends, numbers of treated patients and their treatment process tells a tale of accounting as a performative device (Callon, 2007; MacKenzie, 2006). This bridges a second meaning of performativity: accounting is performative since it comes into existence as it is practiced. This means that accounting comes into being in the form of RT as the physician accounts for time/patient, and the nursing assistant finds *correct patients for correct accounts*. Accounting is existent as long as physicians report their work hours and patient numbers for managers to calculate financial incentives in relevance to days per work hours, and treatment processes. Accounting comes into practice (Ahrens and Chapman, 2007)

enacted by actors (Callon, 1998, 2007), while at the same time shaping them in the way that the it brings about the (re)descriptions of practices and emerging roles.

In conclusion, this article contributes to current literature in two distinct ways. Firstly, we present an empirical case which reveals how accounting ideas and practice within medical professional work is not inherently in conflict or antagonistic (Lowe and Doolin, 1999; Carr and Beck, 2019), but coexistent and interwoven (cf. Kurunmäki, 2004). The presented case illustrates how medical terms and accounting terms are used interchangeably in practice, and how accounting ideas frame and (re)describe the medical context in different ways. This provides an insight into accounting as being something "more than an instrumental and purely technical activity" (Miller and Power, 2013, p. 557). Secondly, this article contributes to the growing literature on accounting as a performative device (Callon, 1998; Vosselman, 2013) by demonstrating how accounting ideas become embedded in medical professional work. We argued that this embeddedness is an empirical demonstration of how the performativity of accounting is (re)describing medical professional contexts (Chua and Degeling, 1993; Chua, 1995; Sjögren and Fernler, 2019). This can be linked with the higher level of incentives in relation to other existing remuneration systems within the (Swedish) health-care sector (Ellegård *et al.*, 2018). Accounting as a performative device is strengthened through this, causing a (self)sustaining level of performativity within the context of medical professional work. Accounting's performative power to infuse (re)descriptions of practices and emerging roles affects the manner in which medical professional work is understood and undertaken. Considering the limitations of this study, we call for studies which investigate the performative consequences of accounting in longitudinal and diverse contexts. Following actors and contexts over time and diverse spaces, future studies could engage in an explanation of the conditions for how and when accounting is performative or, perhaps, counter-performative, in relation to professional work.

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