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# Rationalising prescribing: Evidence, marketing and practice-relevant knowledge

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ABSTRACT

Initiatives in the name of 'rational pharmacotherapy' have been launched to alter what is seen as 'inappropriate' prescribing practices of physicians. Based on observations and interviews with 20 general practitioners (GPs) in 2009–2011, we explored how attempts to rationalise prescribing interact with chronic care management in Denmark. We demonstrate how attempts to rationalise prescribing by informing GPs about drug effects, adverse effects and price do not satisfy GPs' knowledge needs. We argue that, for GPs, 'rational' prescribing cannot be understood in separation from the processes that enable patients to use medication. Therefore, GPs do much more to obtain knowledge about medications than seek advice on 'rational pharmacotherapy'. For instance, GPs also seek opportunities to acquaint themselves with the material objects of medication and medical devices. We conceptualise the knowledge needs of GPs as a need for *practice-relevant knowledge* and argue that industry sales representatives are granted opportunity to access general practice because they understand this need of GPs.



## 1. Introduction

Studies of clinical practice variation have suggested that prescriptions may be influenced less by scientific 'evidence' than by patient demands (Schwartz et al., 1989), physicians' habits (Coleman et al., 1966; Coste and Venot, 1999) and the medical marketing of pharmaceutical companies (Andersen et al., 2006; Peay and Peay, 1988; Spurling et al., 2010). This has stimulated attempts to shape prescribing practices; typically cast as attempts to make the prescribing of physicians more *rational* (Berg, 1997; Marks, 1997). However, studies often conclude that physicians' prescribing show strong resistance against rationalisation attempts (e.g. Grol and Grimshaw, 2003; Pearson et al., 2009; Soumerai et al., 1989).

This article explores how attempts to rationalise prescribing interact with chronic care management in general practice in Denmark. In contrast to numerous intervention studies (e.g. Fijn et al., 2000; Freitheim et al., 2006; Schaefer et al., 2007), we do not start from the assumption that the practices of general practitioners (GPs) are idiosyncrasies to be rationalised. Rather, we ask openly what GPs *do* to acquire knowledge about medication to better understand their knowledge needs – because this is a precondition for designing interventions that target the needs of GPs.

## 2. Rationalising prescribing

Studies on clinical practice variation tend to draw on an epistemic ideal where rationality is aligned with predefined criteria for 'scientific evidence' (e.g. Coste and Venot, 1999; Spurling et al., 2010). Hence, they inscribe themselves in a tradition of 'evidence-based medicine' (EBM) that gained momentum during the 1970–80s (Sackett et al., 1996). Along with the literature on clinical practice variation, social science critique has developed calling for a broader conception of knowledge than the notion of 'evidence' entails (e.g. Armstrong and Ogden, 2006; Gabbay & le May, 2004). Some social science studies critique what they see as a reductionist biomedical positivism of EBM (e.g. Crabtree et al., 2001; Gillet, 2004; Miller et al., 2001). These studies see EBM as a form of standardisation that contrasts fundamentally with the complexity of clinical practice and warn that EBM threatens to reduce physicians to "mindless cooks" (Cutler, 1979, cited in Berg, 1997, p. 7). However, in their opposition to EBM, these studies come to

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reproduce a distinction between 'evidence' and 'experience' – just in the opposite direction. In contrast, a strand of science studies invite scholarly inquiry that does not embark on *a priori* distinctions between 'scientific evidence' and practical experience as the basis of a normative stance (e.g. Berg, 1997; Bohlin and Sager, 2011; Lambert, 2006). As Timmermans and Angell (2001) argue, in the daily practices of physicians 'evidence' cannot be clearly distinguished from but merge with other forms of knowledge. We take this as our analytical starting point and seek to study the knowledge acquisition practices of GPs without assuming that 'evidence' and practical experience are ideally distinct. We explore how GPs acquire knowledge about medication for chronic conditions, and how their knowledge needs relate to the epistemic ideals of 'rational pharmacotherapy'.

To unravel the epistemic ideals of 'rational pharmacotherapy', we explore 'rational pharmacotherapy' as a form of governance that does not operate through direct exercise of power, but through definitions of what constitutes valid knowledge and appropriate practice. We draw upon the analytics of anthropological and sociological studies of governance (Miller and Rose, 2008; Shore and Wright, 2011) that are inspired by Foucault's thinking on biopolitics (Foucault, 2000). Miller and Rose (2008) suggest that governance attempts can be analysed by paying attention to governance *rationalities*; i.e. "styles of thinking, ways of rendering reality thinkable in such a way that it [becomes] amenable to calculation and programming" (p. 15). These analytics emphasise the importance of analysing the often tacit premises and assumptions of governance initiatives in order to understand how they make problems thinkable in certain ways (ibid., p. 3). It prompts us to ask what the *rational* in 'rational pharmacotherapy' entails. Furthermore, Miller and Rose suggest that governance rationalities are enacted through governance *technologies* understood broadly as "assemblages of persons, techniques, institutions, instruments for the conducting of conduct" (ibid., p. 16). This invites attention to the means through which the promotion of 'rational pharmacotherapy' is enacted. However, to understand the practical implications of governance initiatives, we also need to explore how governance rationalities interact with local practices that may be influenced by *other* conceptions of what constitutes valid knowledge and appropriate practice (Shore and Wright, 2011). Hence, we ask how GPs conceive of their knowledge needs, and how they seek to meet these needs. Through qualitative inquiry, scholars have ascertained that prescribing cannot be understood without considering the contextual conditions of clinical practice (Buusman et al., 2007; Fairhurst and Huby, 1998; Rahmner et al., 2009). That which appears to be irrational seen from the outside can therefore make sense to the involved GPs in relation to the work conditions they face. As Berg (1992) argues, to understand what guides clinical action, attention to the locally situated routines of physicians is necessary. This implies that attention is given to the work practices of GPs and what they do to handle the practical challenges of chronic care management. Drawing on previous work by Sarah Wadmann and Klaus Hoeyer, we explore the interplay between the epistemic ideals of 'rational pharmacotherapy' and the practices of GPs as a generative friction (Wadmann and Hoeyer, 2014). A metaphor from physics, friction describes the resisting force when two objects pass. Friction embeds both resistance and movement. Likewise, in the everyday practices of GPs friction between governance ideals and practice may destabilise a course of action or prompt a sense of concern, but it does not stop momentum. Thus, referring to 'rational pharmacotherapy' as a form of governance we refer to the ideals of 'appropriate' conduct that are enacted in attempts to 'rationalise' prescribing *and* the friction it may generate when these ideals interact with the practices of GPs.

## 3. Methods

The article draws on ethnographic fieldwork undertaken by Sarah Wadmann from October 2009–March 2011. The fieldwork involved four days of observation of patient visits and other daily work in three general practices and semi-structured interviews with 20 GPs in the Capital and Zealand regions of Denmark. GPs were sampled to obtain a group that varied on characteristics previously shown to influence prescribing, including experience, practice organisation (ownership and size), workload (patient volume) and proximity to teaching hospitals (geographical location) (Bjerrum and Bergman, 2000; Coleman et al., 1966; Coste and Venot, 1999; De Bakker et al., 2007) (see Table 1). In addition, we recruited four GPs with known industry collaboration and four members of the network Physicians without Sponsor [Læger uden Sponsor]. This network aims to "strengthen rational, research-based, patient-oriented and ethically informed medical work", e.g. by working for "independence from commercially interested parties such as pharmaceutical companies" (www.laegerudensponsor.dk, Feb. 5, 2014, the authors' translation).

GPs were contacted by letter and phone to make appointments. All GPs we got in contact with accepted to participate. During interviews, GPs were asked open-ended questions about their experience of chronic care management, how they learn about medications, and their considerations about drug choice. Lastly, when going through a list of specific activities through which GPs may learn about medications, GPs were asked whether they engaged in a given activity and how it helped them. The list was developed in collaboration with GPs in one practice and updated during subsequent interviews.

To understand the governance of prescribing, further data was obtained by sitting in on continued medical education (CME) organised by the Danish Institute for Rational Pharmacotherapy (IRF) and a pharmaceutical company respectively; observing a sales visit and an 'academic detailing' session (Avorn et al., 1982) in which feedback on prescription statistics was given to GPs by a governmental pharmaceutical consultant. In addition Sarah Wadmann attended a medical marketing course arranged by the Danish Pharmaceutical Association and undertook semi-structured interviews with the (now former) head of IRF, a governmental pharmaceutical consultant, a pharmaceutical company sales manager, and three specialist cardiologists.

All interviews were tape-recorded and transcribed verbatim. Fieldnotes were taken during observations and subsequently written into more elaborate text. Data were coded manually by Sarah Wadmann using principles of grounded theory as described by Charmaz (2006, p. 42–60), and analytical ideas were discussed by the authors. This process made us pay attention to the concept of practice-relevant knowledge. It was used consistently by the GPs—despite their varied characteristics—to characterise their knowledge needs. At first, the concept appeared conflicting to us because GPs used it both to distinguish their needs from that of hospital-based scientists *and* express commitment to principles of EBM and 'rational pharmacotherapy'. Moreover, while expressing disavowal of marketing influence, GPs would *also* indicate how industry sales representatives provided them with practice-relevant knowledge. However, when relating GPs' quest for practice-relevant knowledge to their descriptions of practical challenges in chronic care management, the apparently conflicting explanations started to acquire meaning.

We structured the analysis around four questions: 1) What does the rational in 'rational pharmacotherapy' entail? 2) How do GPs conceive of their knowledge needs, and how do they seek to meet these needs? 3) What do the practical challenges of prescribing entail in the care management of patients with chronic conditions?