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THE DESERVING PAIN: HOW HOSPITALS STRUCTURE MEDICAL DECISION-MAKING AROUND PAIN MANAGEMENT

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ABSTRACT

For decades, American pain specialists promoted the idea that physicians should use patients' subjective, self-reported pain as a valid measurement and prescribe medications accordingly. This logic has been called into question in the context of the opioid epidemic of the 2010s. To address overprescription, leading medical organizations have published new patient care guidelines that put a tight cap on the use of oral opioids for treating chronic, non-cancer pain in the outpatient setting. To date, however, there is no professional consensus on how severe pain should be treated in the inpatient setting. The subjective nature of pain has long rendered it a source of clinical uncertainty, and the current vacuum in guidance for inpatient pain management has compounded this incertitude. Drawing on a two-year ethnography of an academic medical center, I examine how hospitals grapple with the ambiguity of medical decision-making around pain and opioids. By conceptualizing hospitals as organizations that balance multiple, overlapping, and conflicting goals, I leverage the case of pain management to demonstrate how medical decision-making has the potential to advance or work against hospital goals. I find that, in the absence of clear institutional standards around pain management, organizational goals inform how healthcare workers think about pain, how they interpret both clinical interactions and medical knowledge, and how they develop plans for treating patients. From this perspective, pain represents not a value-neutral site for the practice of scientific medicine, but rather one where competing organizational priorities come into conflict. Ultimately, I argue that medical decision-making and patient-doctor interactions are influenced by organizational goals in ways that are consequential for patient care and exacerbate healthcare inequalities.

INTRODUCTION

In his 1995 presidential address to the American Pain Society, physician James N. Campbell presented a transformative vision for pain assessment and treatment in American medicine. He pronounced that pain should be seen as the “fifth vital sign,” alongside the four traditional vital signs: temperature, blood pressure, pulse, and respiratory rate. “If pain were assessed with the same zeal as other vital signs,” he stated, “it would have a much better chance of being treated properly” (1996). Campbell’s comments reflected a widespread belief that pain was significantly undertreated by healthcare providers in the United States (Morone and Weiner 2013). Physicians advocating for better pain management blamed inadequate analgesic therapy on those medical professionals who “erroneously” believed that pain relief with opioids could cause patients to become addicted to these medications (Max 1990; Tarkan 2000). Advocates of recognizing pain as the “fifth vital sign” aimed to revolutionize healthcare in the United States by reducing the hesitancy to prescribe opioids and making proper pain management a central concern for physicians (Baker 2017).

A critical barrier stood in the way of this effort to elevate pain to the status of a vital sign: Pain is invisible. No tools exist that allow clinicians to accurately and objectively measure pain in the same manner in which they measure the other four vital signs. Instead, physicians rely on patients’ subjective self-reports of their own conditions. In the 1990s, several numerical scales were developed that attempted to make self-reporting more reliable, by rendering them quantifiable (Schiavenato and Craig 2010). The most widely used of these scales asked that patients rate the severity of their pain on a scale of 0 to 10, with 10 being the worst pain imaginable (McCarthy et al. 2005). But although these numerical pain sales became the “gold standard” for pain assessment (Schiavenato and Craig 2010), self-rated pain scores were still subjective. The assessment of pain remained distinctly different from the assessment of the other vital signs, which could be measured objectively with high reliability and validity (Schiavenato and Craig 2010).

Despite these challenges to measuring pain, the idea of pain as the “fifth vital sign” caught on rapidly across the United States (Morone and Weiner 2013). Notably, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) – the organization that certifies U.S. hospitals – released new standards for hospitals that incorporated the idea of pain as “the fifth vital sign” into their requirements for hospital accreditation (The Joint Commission on Accreditation of Healthcare Organizations 2001; Lucas, Vlahos, and Ledgerwood 2007). These standards stated that pain management constituted a “patient right” and emphasized the need for regular assessment of pain by clinicians, the use of numerical scales, “appropriate” treatment with medications, and the education of healthcare staff on the importance of effective pain management (Joint Commission on the Accreditation of Healthcare Organizations 2001). By linking these measures to hospital accreditation, improved pain management became not merely a recommendation, but also an institutional mandate: Hospitals had to actively demonstrate their effectiveness at pain management in order to maintain accreditation, an essential step in securing funding and attracting patients (Lucas, Vlahos, and Ledgerwood 2007). Lifts on state-mandated limits on opioids and advertising by the pharmaceutical industry on the safety and benefits of opioids further encouraged physicians to manage pain more aggressively (Federation of State Medical Boards of the U.S. 1998; Manchikanti et al. 2012).

These efforts to curb the undertreatment of pain were successful: Opioid prescriptions nearly doubled over the course of a decade, with 3.2 percent of Americans reporting the usage of opioids for pain between 1988 and 1994 – which increased to 5.7 percent between 2005 and

2008 (Institute of Medicine 2011). But twenty years after James N. Campbell's speech, the "pain as the fifth vital sign" movement has been criticized for contributing to a phenomenon referred to today as the American opioid epidemic (Baker 2017; Lucas et al. 2007). Along with the pharmaceutical industry's suppression of information about the dangers of opioids (Macy 2018), the embrace of these drugs by the U.S. healthcare system led to an overprescription of opioids to treat pain that has been linked to higher rates of drug addiction and deaths from overdose (Baker 2017). Notably, patients have become addicted to and overdosed on opioids even when taking medically-recommended doses (Manchikanti et al. 2012).

In reaction to the opioid epidemic, many leading medical research organizations have updated their standards of care to suggest that physicians significantly curb their use of opioids in treating pain. Perhaps most prominently, the Centers for Disease Control and Prevention (CDC) published new best practices guidelines in 2016 that emphasize three central principles for pain management: 1) non-opioid therapies are preferable, except for cancer patients and during end-of-life care; 2) patients should be treated with the "lowest effective dose" of opioids; and 3) clinicians should exercise caution when prescribing opioids and monitor their patients closely (Dowell, Hagerich, and Chou 2016). Similar guidelines have been released by other leading medical accreditation and research organizations, including the Joint Commission and the American Pain Society (Baker 2017). Taken together, these various guidelines outline a new culture around pain management, but they offer few specific recommendations for how pain should be assessed and how physicians should determine the lowest effective dose. Where these guidelines are specific, they target the use of oral opioids for the treatment of chronic non-cancer pain in the outpatient setting, stating that physicians should avoid prescribing slow-release medications and that patients should never be sent home with more than seven days' worth of pills (Dowell, Hagerich, and Chou 2016). However, they offer much less guidance on how physicians should proceed with the treatment of acute pain in the inpatient setting. Although pre-opioid epidemic patient care guidelines addressing the treatment of acute inpatient pain still exist, they reflect dated ways of thinking about pain.

Pain's invisibility has always rendered it a source of clinical uncertainty, but the current vacuum in guidance for inpatient pain management has created an additional layer of vagueness. Further, the opioid epidemic has underscored the importance of making appropriate decisions about pain management since physicians are now more aware of the potential dangers of opioid medications (Rubin et al. 2018). When it comes to medical decision-making in cases of uncertainty, physicians often rely on treatment guidelines produced by professional societies and other leading medical organizations (Light 1979; Timmermans and Berg 2003). However, physicians treating pain in the inpatient context now face conflicting information: Despite a profession-wide zeitgeist to limit pain treatment, little information exists to clearly orient them to new forms of practice. While new guidelines clearly describe what should happen in an outpatient setting, less is known about how physicians should proceed with treating severe pain in the inpatient context.

In this dissertation, I examine how healthcare workers assess and treat severe pain in the inpatient setting. I ask the following questions: How do healthcare workers make decisions about pain management in the context of uncertainty around pain and about opioids? In the absence of clear treatment guidelines, what informs how decisions about pain are made? How do hospitals' organizational goals shape what courses of action their staff see as appropriate, viable, and safe? And finally, what are the consequences of tensions around pain management and opioid addiction for hospitals and their staff?

The Challenges of Pain Medicine

In order to make sense of medical decision-making around pain management, it is important to first understand how physicians see pain and opioids. In medicine, pain is typically thought of as a neurophysiological phenomenon (Bendelow and Williams 1995). People feel pain as the result of actual or perceived tissue damage that sends signals through nerve fibers to the brain for interpretation (Russo and Brose 1998). Physicians see treating pain as important because doing so relieves unnecessary suffering, increases physical mobility, allows people to take part in activities of daily living, and, for those living with chronic pain, opens up life opportunities (Rouse 2009; Volkow, Benveniste, and McLellan 2018). Not treating pain, on the other hand, can cause psychological damage, prolong suffering, and produce long, costly hospitalizations (Apfelbaum et al. 2003; Max 1990).

Opioids are among the oldest drugs in existence for treating pain (Corder et al. 2018). While many non-opioid pain relievers exist, opioids are usually much more effective (Stein 2016). Physicians generally understand the effects of opioids in neurochemical terms: These medications work by provoking a physiological response in the areas of the brain that regulate the perception of pain and pain-induced emotional responses (Stein 2016; Volkow et al. 2018; Zubieta et al. 2001). In so doing, they block the body’s ability to feel pain. At the same time, opioids stimulate the brain regions that perceive pleasure, creating a psychological response of euphoria and calmness (Zubieta et al. 2001).

Opioids can be dangerous, even when taken as prescribed by a physician (Manchikanti et al. 2012). The physical and perceptual effects of opioids decrease with repeated administration, meaning that patients require increasingly higher doses to experience the same effects as they did initially (Ewan and Martin 2013). This is typically referred to as an *opioid tolerance*. Giving patients higher opioid doses over time in order to achieve a pain-relieving effect can result in *physical dependence* on opioids, which can cause patients to experience withdrawal symptoms (e.g., chills, vomiting, anxiety, irritability, and seizures) when opioids are decreased or discontinued (Bailey and Connor 2005; Volkow et al. 2018). Although physical dependence often accompanies it, physical dependence is different from *addiction*, which is commonly understand both as 1) a learned association between a drug and the experience of pleasure that can, over time, lead to cravings and a strong desire to seek the drug (Volkow and Morales 2015) and 2) the continued use of a drug despite negative consequences (Angres and Bettinardi-Angres 2008). Additionally, opioids are dangerous because they can suppress activity in the respiratory centers of the brain, which can cause people to stop breathing (Pattinson 2008). Because of this risk, opioids have the potential to be lethal.

Prescribing opioids can therefore be a high-stakes endeavor. Relieving pain is important, but the best methods for doing so are dangerous. For physicians, it is not always clear whether the benefits of pain relief outweigh the dangers of exposure to dangerous medications. The task of making appropriate decisions about pain management is made more difficult by the fact that pain is notoriously difficult to assess objectively. As a result, physicians are often in the position of making consequential decisions about their patients' health and well-being without the kind of information that could help them make these decisions well.

Illness, Visibility, and Legitimacy

Pain represents not only a medical problem, but also a social one. Sociologists see pain management as something that is negotiated in interactions and shaped by social institutions and organizations. To start, a large body of sociological research has examined the relationship between illness, visibility, and legitimacy and its consequences for patients and physicians. According to Parsons (1975), sickness can be understood as a form of social deviance, in that the person who is ill does not perform the roles and duties normally expected of them. If a physician verifies that a person is really sick, this legitimates their claim of exemption from normal responsibilities for the period in which they are ill. In return for more lenient social expectations, the person in the “sick role” is obligated to prioritize recovery and to seek appropriate help from healthcare professionals. The act of seeking help reinforces the idea that sickness is not desirable. To malinger – feign illness – or to not actively strive for recovery delegitimizes one’s exemption from social duties and one’s access to the resources that come with being sick.

This social arrangement depends on physicians acting as the gatekeepers of what counts as “real” illness. Traditionally, physicians deploy their superior technical competence to produce expert decisions about whether a patient is or is not truly ill (Starr 1982). However, the task of verifying pain is made challenging by the fact that pain is invisible: It is not generally visible on the surface of the body, nor measurable via biomarkers, like temperature or white blood cell count, that can be measured objectively, reliably, and with high validity (Rubin et al. 2018; Strimbu and Tavel 2010). No medical tests or technologies exist that can accurately tell physicians of the existence, quality, or severity of pain. While wounds and external injuries may sometimes make the existence of pain obvious, many cases of pain stem from internal processes that can be neither seen nor directly measured. Instead, physicians normally assess pain through patient self-reports, that is, asking patients to tell them about their own pain. Numerical pain scales attempt to lend greater accuracy to self-reports, but they are nonetheless are not accurate or reproducible in the same way as running a urine culture or taking a temperature (Schiavenato and Craig 2010). Enormous subjective and cultural differences in how people express and experience suffering exacerbate the issue (Rahim-Williams et al. 2012; Zborowski 1952). On a numerical scale that asks patients to rate their pain from 0 to 10, one person's 5 might be another's 9. In a healthcare system highly reliant on objective measurements, pain remains uncomfortably uncertain and invisible.

In medicine, visibility is linked to legitimacy. As technological developments have made visualization increasingly possible, they have also entrenched the necessity of visualization to make illnesses "real" (Clarke et al. 2003). At one extreme, conditions that can be visually seen or accurately measured are interpreted as real and legitimate. This legitimacy earns those who suffer from *visible* conditions exemption from duties and affords them legal protections, sympathy, and both medical and financial resources (Dumit 2006; Parsons 1975). At the other extreme, patients suffering from conditions that can be neither visually seen nor accurately measured often have their legitimacy called into question. Many conditions that fit into this category are so-called "contested illnesses" whose symptoms are often unexplained and not believed (Aronowitz 1998; Barker 2002, 2008; Brown 1995; Conrad and Barker 2010; Dumit 2006). For example, there is widespread skepticism among physicians that fibromyalgia, chronic fatigue syndrome, and irritable bowel syndrome are somatic illnesses. This stems, in part, from medical technologies being unable to identify anything physiologically abnormal about patients with these conditions (Aronowitz 1998; Barker 2002, 2008). The existence of these conditions as coherent and somatic disorders has also been undermined by the fact that people with these conditions often look like healthy people, on the outside and inside, as far as physicians are able to tell. As a result, people with these conditions struggle to get the resources typically afforded to others with chronic illnesses, including insurance coverage for medical visits and the attention and interest of their physicians (Brown et al. 2004).

Some of the conditions that fit into this category of invisible disorders include mental illnesses such as attention deficit hyperactivity disorder (ADHD) and depression, which are typically diagnosed based on patients' (or parents') descriptions of behaviors and feelings (Blum 2015). Mental illnesses suffer from a "legitimacy deficit" (Kempner 2014): They are often treated as less legitimate than visible, somatic illnesses, in that they are allocated fewer resources and less sympathy from others (Rafalovich 2005; Woolfolk and Doris 2002). Moreover, visibility exists on a spectrum. There is a vast gray area between fully visible (and legitimized) illnesses and those that cannot be seen at all. For example, Kempner (2014) categorizes migraine as a disorder that is made partially visible by the invention of effective pharmaceuticals and by brain imaging technologies that show a difference between "normal" brains and brains "sick" with migraine.

Pain often exists in a gray area similar to migraine. While pain itself can never be measured or made visible, it can often be linked plausibly to a known pathogen, injury, or disorder. Pain is a common symptom of a number of disorders whose existence can be verified through objective measurement, like ruptured spinal disks, diverticulitis (DVTs), pulmonary emboli, pancreatitis, and sickle cell disease. For example, sickle cell disease is a chronic, incurable blood disorder that is diagnosed via a blood test that constitutes part of the routine screening of newborns (Mayo Clinic 2020). Physicians know definitively whether a patient has sickle cell disease or not. They also know that vaso-occlusion – the obstruction of blood vessels by sickled cells – is a common symptom that causes severe, intolerable pain (Okpala and Tawil 2002). Yet, physicians are not able to measure whether an individual sickle cell patient is currently experiencing severe pain from a vaso-occlusive crisis (Rouse 2009; Wailoo 2001). Physicians can see the underlying disorder, but they cannot see the pain itself. As with all pain, patients must be taken at their word. This generates a source of doubt for physicians treating patients with sickle cell disease, who they sometimes believe are “drug-seeking,” rather than legitimately experiencing pain (Rouse 2009). While the presence of an objectively-measured underlying disorder may lend legitimacy to patients’ claims that they are in pain, pain remains an invisible – and often contested – symptom. People in pain suffer from a legitimacy deficit.

Physicians often express greater skepticism of invisible disorders when they are connected to desirable resources, whether material or symbolic (Blum 2015). For example, a diagnosis of ADHD often leads to the prescription of stimulant medications, like Ritalin and Adderall. These medications are “desirable” outside of their intended usage – improving focus in individuals who struggle to focus – in that they can produce a high, and they can also increase focus and productivity in neurotypical individuals. In addition to these being desirable outcomes for patients taking these medications, physicians fear that these effects are desirable for parents. The behavioral changes associated with them make it possible for parents to “shirk their responsibility” (Rafolovich 2005), making an ADHD diagnosis desirable for some parents. Thus, doctors fear that both patients and parents push for ADHD diagnoses, either by faking or amplifying their symptoms. Similar issues arise with anxiety disorders, which are generally diagnosed by patient self-reports and are often treated with benzodiazepines, a class of drugs that produce a high, are addictive, and have a high street value (Gudex 1991; Parr et al. 2006).

Pain presents a similar problem because at the same time that it is invisible, it often warrants treatment with euphoria-inducing, addictive medications. Physicians can imagine high incentives for patients to fake or exaggerate pain: Convincing a physician that one is in severe pain can garner access to opioids, which are valuable for the euphoric effect they induce. While patients might have little incentive to fake other self-reported symptoms, like irritable bowels or fatigue, they can gain access to medically-protected resources by faking pain. This contributes to the legitimacy deficit experienced by pain patients: Physicians can imagine that they are exaggerating and faking conditions to gain access to resources (Rouse 2009), especially given the addictive nature of opioids. It is often physicians who are left to police what is “real,” even when they do not possess expert tools to allow them to do so accurately.

Controlling Clinical Uncertainty

Invisible conditions represent just one among many sources of clinical uncertainty that make it challenging for physicians to make good medical decisions. Uncertainties permeate the clinical environment, and physicians often work actively toward managing them (Light 1979). According to the sociological literature on clinical uncertainty, physicians are frequently most aware of uncertainties while they are still in training (Gerrity et al. 1992). In her landmark ethnography of clinical uncertainty, Fox (2019 [1959]) identifies three key sources of uncertainty for medical students: 1) the limitations of medical knowledge itself, 2) incomplete mastery of medical knowledge and skills, and 3) difficulties in distinguishing between what is unknown due to limitations of medical knowledge and what is unknown due to incomplete mastery. The latter two sources of uncertainty tend to diminish as medical students and residents gain better mastery of medical knowledge (Bosk 1979; Gerrity et al. 1992). That said, uncertainties that stem from the limitations of medical knowledge are a more or less permanent source of clinical uncertainty for physicians at any career stage and in any setting (Light 1979).

Uncertainties around medical knowledge include the fact that some symptoms and conditions are unmeasurable, as I detailed in the previous section. While uncertainty may feel exaggerated for doctors when it comes to treating patients’ pain (because of the lack of objective measures), uncertainty and interpretation actually play a much larger role in medicine than many doctors are aware. Indeed, even with good measurements, the variety of clinical uncertainties that physicians face in assessing, diagnosing, and treating patients make the task of verifying illness challenging. For example, uncertainties arise from incomplete knowledge of patient cases, which can be exacerbated by the fact that knowledge about patients often comes from patients' own accounts (Light 1979). Time pressures in the contemporary healthcare system often limit physicians' ability to complete thorough, in-depth interviews with patients, and thus they must often make decisions about diagnosis, treatment, and prognosis from a constellation of facts, rather than from the full picture (Maynard and Heritage 2005). Further, patients can misrepresent information, whether intentionally or by accident. Patients often conceal medical misdeeds, such as engaging in unhealthy behaviors or taking a medication that was not prescribed to them (Bergen and Stivers 2013). And, as I explained in the previous section, patients also sometimes malinger.

Unlike clinical uncertainties that stem from one's own lack of medical knowledge, uncertainties that stem from the limitations of medical knowledge cannot be reduced by further learning (Light 1979). Instead, physicians often work to *control* uncertainty when they are aware of it. On the interactional level, controlling uncertainty often amounts to client impression management (Goffman 1959): Physicians can maintain authority in clinical encounters by feigning more certainty than they possess (Davis 1960). That said, sociologists typically think of controlling clinical uncertainty as an institutional and professional process. According to this view, clinical uncertainty represents a serious problem for the medical profession because it challenges professional dominance, understood as physicians' monopoly over issues of sickness and health (Freidson 1970a). Physicians' authority depends on the public believing that they possess esoteric knowledge and can apply it effectively to managing problems of the human body (Hafferty and Light 1995; Starr 1982). Minimizing clinical uncertainty therefore plays a central role in maintaining the legitimacy of the medical profession.

Since the 1980s, evidence-based medicine has been the medical profession's key strategy for controlling clinical uncertainty (Timmermans and Berg 2003). According to proponents of evidence-based medicine, medical decision-making should be rooted in scientific evidence, with meta-analyses of randomized clinical trials as the gold standard of reliable evidence (Sackett and Rosenberg 1995; Timmermans and Berg 2003). This movement has pushed for the development of higher-quality evidence (e.g., through clinical research), the synthesis of this research, and its deployment by members of the medical profession. The findings of research studies have primarily been disseminated to practicing physicians in the form of clinical practice guidelines (also referred to as best practices guidelines or formal standards of care) (Timmermans and Berg 2003), which typically synthesize the findings from research studies into clear instructions for how to proceed in particular patient cases (Field and Lohr 1990). Often, leading medical research bodies like the National Institutes of Health (NIH) and the Centers for Disease Control and Prevention (CDC), among others, fund, develop, and disseminate these guidelines.

Ultimately, the goal of evidence-based medicine is to improve the quality and uniformity of medical decision-making by bringing certainty to every step of the decision-making process. However, evidence-based medicine does not always achieve this goal, in part because of the proliferation of too many guidelines. Often, multiple, conflicting guidelines exist that offer incompatible advice (Timmermans and Berg 2003). Further, many medical problems remain immeasurable. Evidence-based medicine and best practices guidelines still exist for conditions like pain and psychiatric illness that physicians have no reliable way of measuring. However, the reliability of this evidence is weakened by the fact that researchers have to draw on subjective assessments (Schiavenato and Craig 2010). Often, clinical practice guidelines around invisible conditions reflect different schools of thought around treatment (Light 1979). In fields that confront a great deal of uncertainty, schools of thought permit physicians to become comfortable in their decision-making, and “being comfortable and being effective become synonymous” (Light 1979:319).

Evidence-based medicine does not always render medical decision-making uniform and certain, however, because individual physicians interpret standards differently. A large body of sociological research on medical decision-making shows that even when clear, evidence-based guidelines exist, physicians’ work is often biased by a variety of non-objective factors.

The Sociology of Medical Decision-Making

Medical decision-making has long been a topic of interest to sociologists, who argue that medical decision-making is a socially-situated event. Their research has elaborated a number of ways in which physicians draw on non-objective data when making clinical decisions. To start, medical knowledge itself is often socially constructed (Conrad and Barker 2010). Disease categories can reflect cultural ideas of what is desirable and valuable, and medical diagnoses are often applied to social deviance (Brown 1995; Conrad 2007; Foucault 1994 [1973]; Freidson 1970b; Saguy 2013). For example, research suggests that the medical label “overweight” corresponds to social and cultural ideas about what kinds of bodies are attractive, rather than actual medical risk associated with having a larger bodily habitus (Saguy 2013; Saguy and Almeling 2008). Further, the labelling of homosexuality as a psychiatric disease in the midtwentieth century reflected social norms about sexuality (Conrad 2007). In this sense, medical knowledge is not value-neutral. Rather, it acts as a form of social control that reinforces cultural norms and the status of those already in power (Conrad and Barker 2010). Seemingly-objective medical concepts are rife with biases that reflect and reproduce social inequalities (Brown 1995).

Further, the boundaries of what is considered a medically-relevant problem are often shaped by social processes. Medicalization describes the process by which non-medical problems become relabeled as medical ones (Conrad 2007). According to this theory, an increasingly broad range of phenomena have been constructed as “medical” in nature since the nineteenth century. This is not because of a natural increase in the number of physical and psychological maladies. Rather, scholars of medicalization suggest that historical, professional, economic, and political forces have shaped the proliferation of medical diagnoses. Secularization, for instance, eroded several religious explanations for and treatments of deviant behavior, paving the path for new, medical explanations of phenomena like depression and suicidal ideation (MacDonald 1989). Others hypothesize that the medical profession has actively “annexed” new phenomena into its jurisdiction in order to expand its power and authority (Conrad 2007; Illich 1974). For example, bodily processes like menstruation, menopause, and balding, which were once conceived of as “normal,” have increasingly been treated by physicians as “problems” in need of medical intervention (Barker 1998; Conrad 2007). Pharmaceutical companies have often pushed for the expansion of diagnostic categories in order to generate profits from new drugs (Fishman 2004; Singh 2002). And further, patients themselves have sometimes pushed for the medicalization of their conditions through social movements. Alcoholics Anonymous played a centrally important role in advocating for addiction to be understood as a medical disorder; similarly, the Vietnam Veteran's Movement worked to create post-traumatic stress disorder as a diagnosis (Conrad 2007).

Medical knowledge is also shaped by the ways in which people invest attention and other resources into diseases. Illnesses experienced by high-socioeconomic (SES) status individuals are more likely to receive research funding, allowing more knowledge to be produced about them (Ghazal Read and Gorman 2010; Kolker 2004; Link and Phelan 1995). Illnesses experienced by low-SES individuals or groups considered deviant, on the other hand, are less likely to receive the kinds of resources that lead to effective treatments and cures (Epstein 1995; Rouse 2009; Wailoo 2001). This discrepancy can reinforce health disparities, as well as other clinical inequalities (Conrad and Barker 2010). Further, medical knowledge is conditioned by social aspects of the research process. Physicians and researchers often negotiate with one another about what counts as biomedical evidence and what the content of clinical practice guidelines should look like (Joyce 2008; Timmermans 2006; Timmermans and Berg 2003). Further, the exclusion of women and racial minorities from medical research is believed to create medical knowledge that disproportionately benefits white men (Epstein 2007).

Because medical knowledge is socially constructed, physicians work within an epistemological framework that is less certain and objective than they or the public might think. However, physicians often take for granted that disease categories and diagnostic procedures are stable, and they can deploy them uncritically (Brown 1995). In this sense, medical decision-making is shaped by the social construction of what counts as a medical condition.

Further, cultural norms shape how physicians diagnose and treat patients. Physicians may favor a particular diagnosis because they see it as less stigmatizing than other options, or they may avoid making diagnoses they see as stigmatizing. For example, physicians sometimes diagnose children with low-functioning autism as opposed to mental retardation because they and the parents of the children they are diagnosing see autism as the “better” label (King and Bearman 2009). Moreover, medical examiners sometimes avoid labelling suspicious deaths as suicides because they feel this designation will be stigmatizing and upsetting to the families of the deceased (Timmermans 2006). In both of these cases, physicians’ own beliefs about the “right” diagnosis confront the beliefs of patients and their family members, who can put pressure on physicians to make diagnoses that they see as more favorable to themselves and their loved ones. This constitutes another social force that influences medical decision-making.

Biases rooted in cultural norms shape medical decision-making via patient-doctor encounters. Physicians gather information about patient race, gender, and SES via clinical interactions that can shape their treatment recommendations, whether consciously or unconsciously (Burgess, Fu, and van Ryn 2004; van Ryn et al. 2011). For example, physicians prescribe women fewer pain medications than men, even though women report more pain overall (Kempner 2014). This is explained in part by the fact that expressing pain aligns with gender norms for women but goes against gender norms for men. Physicians often assume that women complaining about pain are being prototypically emotive, whereas men expressing pain must truly be in severe pain (Kempner 2014). Similar patterns exist for race: Non-white patients are less likely to be assessed for pain or to be treated for pain control than white patients across a variety of settings, including emergency rooms (Todd et al. 2000; Todd, Samaroo, and Hoffman 1993), nursing homes (Won et al. 1999), and long-term cancer treatment clinics (Anderson et al. 2000; Cleeland et al. 1997).

There is reason to believe that decision-making around invisible conditions, like pain, is especially vulnerable to bias. However, research also shows that biases shape clinical decisions about conditions that are more visible and certain. For instance, physicians typically make decisions about whether patients are at risk for heart disease based on objective, measurable symptoms such as blood pressure, cholesterol levels, and the results of diagnostic tests like electrocardiographs. However, research suggests that they interpret this information differently, based on race, and are more likely to refer white patients for follow-up with heart specialists than black patients with the same objective measurements (Stepanikova 2012). Thus, even when objective data exist that should make medical decision-making standard and equitable, physicians still draw on non-objective information to make their decisions.

Medical decision-making is also influenced by interactions between patients and providers. For example, physicians often favor patients who have high levels of cultural health capital (CHC), a term that describes the "particular repertoire of cultural skills, verbal and nonverbal competencies, and interactional styles that can influence health care interactions" (Shim 2010:2). Aspects of CHC include medical knowledge, compliance, and taking a proactive stance toward one's own health and well-being. While patients can deploy these qualities deliberately, more often they do so unconsciously, by acting in habituated ways (Rubin et al. 2018; Shim 2010). Deployment of valued skills, competencies, and styles can help build rapport, empathy, and trust between patients and physicians, which, in turn, can lead to better health outcomes (Shim 2010). For example, when it comes to medical decision-making around pain treatment, physicians are more likely to prescribe pain medications to individuals who deploy CHC (Rubin et al. 2018). Because CHC is stratified along the lines of race, class, and gender (Chang, Dubbin, and Shim 2016; Shim 2010), the differential treatment of patients with high-CHC contributes to health disparities. In this sense, medical decision-making is shaped by interactional features of the clinical encounter.

While the medical sociology literature provides a strong theoretical account of how macro-level phenomena – such as institutions and culture – and micro-level phenomena – such as interactions between patients and physicians – shape medical decision-making, this literature is weaker on the organizational level. And yet, the ways in which hospitals and medical practices balance a plethora of sometimes competing organizational goals is deeply important to how doctor-patient interactions play out and how macro-level standards impact medical decision-making on a daily basis. Comparative studies of different healthcare clinics have shown that organizational factors, like time pressure on physicians, division of labor between clinicians, and continuity of care (i.e., whether patients are seen by the same or different providers on subsequent visits) can influence medical decision-making (Lutfey and Freese 2005; Rubin et al. 2018; Stepanikova 2012). These studies suggest that organizations are fundamental to shaping clinical practices, but they do not fully elaborate the relationship between organizational goals and medical decision-making. This dissertation seeks to fill that gap by bringing the sociological literature on medical decision-making into conversation with the sociology of organizations.

Hospitals as Organizations

Sociological research on organizations provides useful insights for understanding how social context shapes medical decision-making in hospitals and other healthcare settings. This literature shows that individual decisions are often shaped by organizational goals, which are the aims that organizations pursue with their activities (Perrow 1961). These include both "official goals" that organizations put forth to the public and "operational goals" that organizational policies stipulate and participants enact, but that might be hidden to the public. Typically, organizational goals are set by dominant groups of actors within organizations (Cyert and March

1963). In complex organizations with multiple groups of powerful actors, many goals, sometimes contradictory, guide behavior (Cyert and March 1963; Perrow 1961). Some goals are formalized in rules and initiatives, while others are institutionalized through being routinely enacted, but not necessarily formally stated (Scott and Davis 2007).

Organizational goals are especially useful as a theoretical lens for contextualizing medical decision-making because they influence cognition (Simon 1964, 1997 [1945]), providing “criteria for generating and selecting among alternate courses of action” (Scott and Davis 2007:184). They also inform what categories emerge as viable and how people evaluate situations (Heimer and Staffen 1998). They help determine what kinds of behavior are seen as good, appropriate, or normal and what kinds of behavior are seen as bad, inappropriate, or deviant (Powell and DiMaggio 1991; Heimer and Staffen 1995, 1998; Vaughan 1998). Organizational goals can also represent “ideological weapons” that actors use to justify particular courses of action, the enactment of certain rules, and the distribution of resources (Scott and Davis 2007:184). Actions can be legitimated or delegitimated using organizational goals. Goals are also used as a framework for assessing people, policies, and processes within organizations (Scott and Davis 2007). In this sense, organizational goals are useful not just for making sense of why clinicians make decisions in the way they do, but also for understanding how and why organizational-level policies that shape medical decision-making are put into place.

Hospitals often balance several overlapping and competing organizational goals. Some of these goals are internally-imposed and vary between hospitals with different histories and structures. For example, hospitals have organizational missions that stem from the circumstances of their founding and shape how they frame their duties to patients (Reich 2014). They also differ in the extent to which they prioritize medical education and clinical research. Academic hospitals, for example, typically put these goals at the forefront, whereas community hospitals often do not (Jenkins 2018). Additionally, hospitals must stay financially solvent in order to stay open and continue providing care for patients (Heimer and Staffen 1998; Reich 2014). Profit generation and/or the reduction of financial losses, therefore, often become part of hospitals' organizational goals.

Healthcare institutions to which hospitals and their employees are held accountable impose other goals. For example, several groups are responsible for accrediting hospitals. The Joint Commission (formerly the Joint Commission on Accreditation of Healthcare Organizations) reviews hospital data and conducts annual site visits to ensure that hospitals meet standards for quality of care. The Accreditation Council for Graduate Medical Education (ACGME) sets standards around resident education and measures whether teaching hospitals achieve them. A variety of healthcare industry watchdog groups aim to guide consumers in choosing hospitals and doctors, for example by assigning hospitals letter grades for the quality of patient safety (e.g., Leapfrog Group) or by giving out other honorific distinctions (e.g., Magnet designation for high-quality nursing). When making assessments, these groups sometimes reward efficiency, as well as quality, by taking into account things like the average length of hospital stay for patients. Further, federal and state governments set and regulate policies and laws that hospitals must follow (Centers for Medicare and Medicaid Services 2020; Zibulewsky 2001). Moreover, hospitals have to answer to insurance companies, which often have their own standards for quality of care and tie reimbursement to their enactment (Light 2000).

Most research on how organizations shape medical decision-making focuses on goals related to financial solvency. Hospitals have faced increased financial pressure following the advent of managed care, a blanket term for a number of cost-cutting activities following the passage of the 1973 Healthcare Maintenance Organization Act (Light 2000). This has resulted in resource constraints throughout the U.S. the healthcare system (Livne 2014; Reich 2014; Weinberg 2004). Hospitals' efforts to achieve financial solvency under these conditions influence medical decision-making in a number of ways. For example, concerns over profit can inform decisions about whether or not terminally ill patients should be transferred to hospice care (Livne 2014). Organizational limitations around staff time and availability can encourage clinicians to prescribe opioids to patients in order to placate them while they wait for medical attention (Lara-Millan 2014). Further, organizational pressures to conserve limited resources influence how healthcare workers decide whether patients are ready for hospital discharge (Heimer and Staffen 1995, 1998).

While this research on how cost-cutting pressures shape medical decision-making is important, focusing solely on financial solvency can obscure other organizational goals at play. The sociological literature on medical decision-making would benefit from a broader consideration of how healthcare staff balance multiple, often conflicting organizational goals. How do organizational goals inform how medical knowledge is interpreted, framed, and enacted? In cases of clinical uncertainty, what courses of action are seen as viable and appropriate in light of organizational goals? When goals come into conflict in medical decision-making, which are prioritized and in which cases? And lastly, how do occupational roles shape which goals healthcare workers prioritize in the decision-making process?

This Study

In this dissertation, I explore how healthcare workers make decisions about pain management in the context of clinical uncertainty around pain and opioids. I argue that the sociological literature on patient-doctor interactions, cultural biases, and the institutional power of the medical profession are not sufficient for understanding medical decision-making. Rather, I situate medical decision-making and clinical encounters within the organizational context of the hospital. I show that this context influences how healthcare workers think about pain, how they interpret clinical interactions and medical knowledge on pain, and how they develop and enact plans for treating pain patients.

By conceptualizing hospitals as organizations that balance multiple, overlapping, and conflicting goals, I leverage the case of pain management to demonstrate how medical decision-making has the potential to advance or work against hospital goals. I find that, in the absence of clear institutional standards around pain management, organizational goals inform how healthcare workers think about pain, how they interpret both clinical interactions and medical knowledge, and how they develop and enact plans for treating patients. From this perspective, pain represents not a value-neutral site for the practice of scientific medicine, but rather one where competing organizational priorities come into conflict. Ultimately, I argue that medical decision-making and patient-doctor interactions are influenced by organizational goals in ways that are consequential for patient care and exacerbate healthcare inequalities.

I base my argument on a two-year ethnography of the general internal medicine service at a large, academic medical center. I refer to this medical center as Hudson Hospital, a pseudonym. This field site was useful for a study of medical decision-making in the context of clinical uncertainty for several reasons. First, as an academic medical center, Hudson Hospital emphasizes the importance of evidence-based medicine and guideline-focused care. This emphasis made pain's invisibility less tolerable to Hudson's healthcare staff and allowed me to examine the strategies that evidence-minded clinicians deployed to manage this uncertainty in medical decision-making. Secondly, Hudson Hospital’s patient population made it possible to make comparisons between decision-making processes used for different kinds of patients. Located on the border of a large, primarily low-SES and African American urban area, Hudson Hospital serves a medically underserved community. At the same time, as an academic medical center with a reputation for excellence, Hudson Hospital also attracts higher-SES patients, many of whom are white. This class and race mix allowed me to analyze biases in how healthcare workers assessed and treated pain.

The majority of my time was spent on the adult general internal medicine service. Internal medicine is a medical specialty that deals with the non-surgical treatment of internal diseases, broadly defined. At this hospital, general internal medicine patients often represented those who could not be assigned to one of the specialty internal medicine services, such as oncology or cardiology. Many of these patients had long-term chronic illnesses and multiple comorbidities. The general internal medicine service was of particular interest because it provided care for a large number of *pain patients*, a blanket term I use to describe any patient being treated for pain. The majority of pain patients on the general internal medicine service had sickle cell disease, a genetic blood disorder that caused intermittent crises of acute pain. The next largest group had pancreatitis, a painful inflammation of the pancreas, which can also cause intermittent acute pain. These two groups were particularly interesting for my study because the existence of their underlying condition was “certain” (i.e., objectively measurable), but the presence of an acute pain flare-up was not certain. Clinicians had to take these patients at their word. Having a documented underlying condition lent many of these patients enough legitimacy to be admitted to the hospital. But on the inpatient floors, the invisibility of their severe pain often led to doubt about whether their pain was real. This doubt often grew if these patients were *only* in the hospital for IV opioid therapy, as opposed to diagnostic testing, medical procedures, and/or monitoring for medical complications.[1] Other pain patients had pulmonary emboli, diverticulitis, osteomyelitis, and a number of other conditions that resulted in typically receiving medical interventions beyond pain management.

Between June 2017 and March 2019, I conducted over 700 hours of participant observation across 112 discrete instances. Because my focus was on medical decision-making, I spent the majority of my time with physicians, especially resident physicians. Residents are simultaneously learners and practitioners of medicine. They have graduated from medical school and are specializing in a particular branch of medicine (in this case, internal medicine) through an additional 3-7 years[2] of hands-on training. Residents practice medicine under the supervision of attending physicians (fully licensed physicians who practice medicine and teach residents), who verify their decisions and contribute to their education. That said, at Hudson Hospital, attending physicians were not physically present on the inpatient units for the majority of the day. Residents handled the majority of decisions about inpatient pain management themselves.[3] During my fieldwork, I shadowed residents throughout their workdays as they went on morning rounds, collaborated with consulting teams and non-physician clinicians, attended lectures and conferences, admitted patients to their units, and took care of the bureaucratic aspects of patient care (e.g., writing notes, obtaining medical histories, and scheduling follow-up appointments). I also conducted observations with pharmacists, nurses, and other non-physician clinicians, as well

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[1] Sickle cell patients can develop complications that require more advanced monitoring and procedures, but often the sickle cell patients on the general internal medicine units were only in the hospital for pain management and did not require additional interventions.

[2] The residents who rotated on Hudson Hospital's general internal medicine service were all in three- to four-year residency programs.

[3] While residents made the majority of decisions about inpatient pain management, they could not write prescriptions for opioids in the outpatient setting. Because opioids are a controlled substance, only fully-licensed physicians can prescribe them. In the case of the general internal medicine service, attendings had to sign any opioid prescriptions given to patients to take at home.

as with nurse managers, who were trained as nurses but who were promoted into more administrative roles.

My relationships with my research subjects were facilitated by the fact that Hudson Hospital is an academic medical center. Much of the hospital's staff were themselves involved in research projects. Many of my subjects, especially the residents, found it exciting to be part of a research study. Further, Hudson's academic hospital status resulted in observers being present frequently on the hospital floors, including nursing and pharmacy students, residency program applicants, and occasionally other researchers. As a result, my presence was less conspicuous than it otherwise might have been.

I supplemented my observations with 30 in-depth interviews with physicians, pharmacists, nurses, and nurse managers. I used these interviews as an opportunity to ask individuals to reflect further on their pain management philosophy, the reasoning behind their clinical decisions, and their views about healthcare in general. With some attendings, nurse managers, and other more senior clinicians, I also used interviews as an opportunity to learn about the behind-the-scenes forces shaping medical decision-making during daily patient care.

Chapter Outline

In this dissertation, I examine how organizational goals shape medical decision-making in the case of clinical uncertainty around pain management. I begin in Chapter 1 by describing Hudson Hospital's four central organizational goals: providing high-quality patient care and maintaining a reputation as an "excellent" hospital; producing stellar residents and medical students through strong education; providing healthcare for every patient who walked through the hospital's doors, regardless of insurance status; and remaining financially solvent. I then show how hospital staff sometimes interpreted pain patients as representing a barrier to each of these goals. I argue that the construction of pain as an organizational "problem" shaped how staff approached the medical treatment of pain patients. Specifically, staff imagined that opioids could be used as a "solution" to the organizational problem of pain, but in two conflicting ways. One group, dominated by physicians, thought that the best strategy to advance organizational goals was to be permissive with IV opioids in the hospital, but conservative with sending patients home with oral opioids. The other group, dominated by nurses and managers, thought that reducing IV opioids and prescribing more oral opioids (to be taken at home) was the better strategy for advancing organizational goals.

In Chapter 2, I examine the organizational process of deciding which actions should be taken. Specifically, I investigate how healthcare workers assessed pain and made decisions about which patients were appropriate for treatment with opioids. Even though healthcare workers initially assessed pain by asking patients to numerically rate their pain, I found that they did not trust these ratings. Instead, they used several forms of secondary evidence to verify patients' self-reported pain scores. Based on these secondary assessments, healthcare workers labelled pain patients as either "legitimate" or "drug-seeking." My findings suggested racial bias played a role in how these labels were applied to patients. Further, I demonstrate important occupational differences in how labels were applied and the extent to which healthcare workers believed patients labelled as deviants – "drug-seekers" – should be evicted from the hospital. These disagreements reflected beliefs about Hudson Hospital's organizational priorities and contributed to an atmosphere of conflict around pain patients.

Chapter 3 interrogates how organizational goals shape the ways in which medical protocols are interpreted and written. I leverage the case of a major, nationwide shortage of IV opioids that forced Hudson Hospital to significantly alter its pain management practices. Prior to the shortage, physicians were fairly permissive in how they prescribed IV opioids. This was the case even when it came to suspected “drug-seekers,” because they believed this practice, along with limiting the number of oral opioids with which patients were sent home, contributed to providing high-quality patient care. However, many healthcare workers also associated the use of IV opioids with the kinds of long hospitalizations that made it challenging to achieve organizational goals around providing care to all and financial solvency. Following the IV opioid shortage, Hudson Hospital implemented a new patient care protocol that limited patients to 24 hours of IV opioids. If patients needed further pain treatment after 24 hours, physicians had to transition them to oral opioids and then send them home. Even though many healthcare workers recognized that this new practice did not match their understanding of excellence in patient care, they embraced it as a positive step; it enabled them to expedite the discharge of pain patients, which furthered several other organizational goals. They advocated to make the 24-hour cap on opioids a permanent part of hospital policy even after the shortage ended, thus creating an official hospital policy that prioritized the goal of getting pain patients out of the hospital faster over other goals.

CHAPTER 1: PAIN AS AN ORGANIZATIONAL PROBLEM

On a balmy morning in September 2017, I walked through a bright and sterile hospital hallway with a group of physicians as they conducted morning rounds. The physicians stopped in front of patient rooms to discuss the intricacies of patients' medical cases and the day's plans for testing and treatment, their conversation punctuated by occasional chirps from monitors at the nurses' station. At 10am, as they finished discussing the last patient on their list, attending physician Lee pulled the residents aside near the elevators. "Since we have some time," he told them, "I'll do some teaching about hospital economics. Does anyone know the importance of early discharge versus length of stay?"

When none of the residents answered, Lee continued, "Early discharge is important because we're paid [by insurance companies] at midnight. So, every moment after midnight we're losing money. We aren't paid for any of it. So, the worst discharge time is 11:59pm, and the best is 12:01am. What about length of stay?" asked Lee. "Why is it important to have a short length of stay?"

Adina, the senior resident, asked timidly if it is because it is bad for the patient's health to stay a long time. She had iatrogenic illnesses in mind – patients are more likely to acquire certain infections within the hospital the longer they stay there.

"No, we don't care about that," said Lee, laughing. "It matters because we get compared to other similar hospitals for our length of stay," he explained. "And Hudson Hospital has a higher average length of stay compared to other hospitals. That makes the insurance companies think we're inefficient. Then they want to pay us less because we're not doing a good job here getting people out."

This encounter opened my eyes to the large number of organizational goals in operation at Hudson Hospital. Such goals guide, motivate, and justify behavior within an organization (Perrow 1961; Scott and Davis 2007; Simon 1964). As an elite academic hospital located adjacent to a low-income neighborhood, Hudson Hospital balanced several organizational goals: 1) to provide high-quality patient care and maintain a reputation as an "excellent" hospital; 2) to produce stellar residents and medical students through strong education; 3) to provide healthcare for every patient who walked through the hospital's doors, regardless of insurance status; and 4) to remain financially solvent in order to sustain the first three goals. These goals were not merely officially stated; they were enacted via the hospital's operating policies and in the daily decision-making of hospital staff (Perrow 1961). Often, they coincided with individual goals (Simon 1964), such that hospital staff benefitted personally from carrying out the goals of the organization as a whole.

In this chapter, I examine how organizational goals shaped the ways in which healthcare workers approached pain management at Hudson Hospital. I start by describing the four main organizational goals driving decision-making at Hudson and the conflicts that arose between these goals. Next, I show that even though care for pain patients was encompassed within some organizational goals (e.g., providing care for all patients), Hudson's healthcare staff often saw care for pain patients as a barrier to achieving their goals. When it came to providing high-quality care, staff found that pain patients posed a challenge because of the uncertainty around best practices for pain management. When it came to educational goals, physicians often saw pain patients as less interesting and educationally valuable than other patients. When it came to providing care for all, hospital staff believed that pain patients' medical needs were often less valid than those of other patients and that they were less deserving of limited hospital space.

Moreover, hospital staff saw pain patients as a challenge to financial solvency because they required long hospitalizations (which were costly) and were on Medicaid (which meant that they hospital was reimbursed for only a fraction of their care). Pain patients, therefore, represented an organizational "problem" in relation to a variety of organizational goals. I conclude the chapter with a discussion of how hospital staff saw opioids as a potential "solution" to the organizational problem of pain.

Hudson Hospital's Organizational Goals

Providing Excellent Patient Care

Hudson Hospital aimed to provide high-quality patient care that would help maintain its reputation as an excellent hospital. At Hudson Hospital, "excellent" patient care was defined as care rooted in evidence-based medicine, a way of practicing medicine that applies scientific research to medical decision-making (Masic, Miokovic, and Muhamedagic 2008). Evidence-based medicine is widely considered the "gold standard" of healthcare (Timmermans and Berg 2003), especially at academic medical centers like Hudson Hospital. Almost all of the physicians and many of the pharmacists and nurses at Hudson were involved in research projects, and reliance on research studies was very much part of the hospital's culture. As Katie, a resident, told me, "This [hospital] is cutting edge. It's kind of at the forefront, trying to practice evidence-based medicine. Not everywhere is like that." She explained that the lower-ranked medical school she attended put much less emphasis on evidence and that community hospitals often "don't have to do things that are evidence-based, and it's dangerous." At Hudson, evidence-based medicine was seen as a necessity because it made patient care safer and more effective.

Hudson’s attendings reinforced the importance of evidence-based practice when interacting with their trainees (residents and medical students). When a trainee proposed a plan for treating a patient, it was common for attendings to retort, “What’s the evidence for that?” They wanted their trainees to cite specific research papers to support their ideas. For instance, I was following Orla, an attending physician, on her first day with a new resident team. Before morning rounds, she gathered with them in the resident workroom to share her expectations of them during the rotation. “Push to be the best,” she told them. “Come with extra information. I am going to push you to bring articles, to show the evidence. So, if we’re sitting here talking about ‘what’s the evidence for Flovent (a steroid medication) in asthma,’ show it.” This attitude toward evidence was common among attendings. They set the tone for their residents and medical students that using evidence to support medical decision-making represented a patient care ideal at Hudson Hospital.

Attendings encouraged residents and medical students to do their own primary research on a given topic, but they also recognized that the amount of medical literature could be overwhelming. When it came to making good decisions about patient care during a busy shift, residents usually did not have time to sort through and assess multiple research papers. Fletcher, a resident, explained that, in these cases, “You rely on guidelines from medical societies. So basically [these are] the top people in the field summarizing the literature... If I ever do not know what to do for a certain disease, I read those guidelines.” For Fletcher, an aspiring liver specialist, guidelines for the American Association for the Study of Liver Disease (AASLD) represented the gold standard of evidence-based guidelines for liver problems. Fletcher and many other residents said they relied on guidelines from the National Institutes of Health (NIH), the largest biomedical research agency in the world. I also saw physicians draw upon guidelines from the Centers for Disease Control and Prevention (CDC) and from a variety of medical societies similar to the AASLD, e.g., the American Society of Clinical Oncology (ASCO), and many other specialist groups. For physicians at Hudson Hospital, guideline-focused care represented a patient care ideal.

Hudson Hospital was also beholden to ideas of "excellence," as defined by several healthcare industry watchdog groups that set their own standards for excellence in patient care and awarded hospitals that best achieved them. Hudson consistently achieved these external markers of prestige, and hospital staff took the rankings very seriously. For instance, Hudson prepared arduously for site visits from Leapfrog, an organization that gives hospitals letter grades for the quality of their patient safety. Hudson had earned an "A" – the highest grade – for the past several years, a boasting point that it displayed proudly on its website, on billboards, and in the halls of the hospital itself. This letter grade was based on success across a number of measures of the hospital's process and structure (e.g., use of computerized entry of medications, number of physicians per patient in the intensive care unit (ICU), and rate of response to pages) and of patient outcomes (e.g., rate of iatrogenic illness and number of patient falls) (The Leapfrog Group 2019). Hudson also worked to achieve high scores on the Hospital Consumer Assessment of Healthcare Providers and Systems (HCHAPS) survey, a patient satisfaction survey from which Leapfrog pulled some of the data it used to grade hospitals. HCAHPS data was also connected to a website that allowed patients to compare information about different Medicare-certified hospitals (Centers for Medicare and Medicaid Services 2020). Further, Hudson had achieved Magnet recognition following a site visit from the American Nurses' Credentialing Center (ANCC). This award for excellence in nursing, held by only 8.3% of hospitals nationwide (Duquesne University School of Nursing 2019), was based on job satisfaction among nurses and the rate of nursing job turnover, among other measurements (American Nurses' Credentialing Center 2017).

Efforts to achieve external recognition for high-quality patient care were often complementary to the ethos of evidence-based medicine. Many of the metrics of excellence employed by these external organizations emphasized rationality and standardization in healthcare, goals touted by proponents of evidence-based medicine (Timmermans and Berg 2003). Many of the metrics used by watchdog groups were themselves based on best practice research. For example, Leapfrog took HCHAPS survey data on "patient experience in the hospital" into account, including patient perceptions of how well their healthcare team communicated. Leapfrog justified the inclusion of this metric by citing evidence from research studies that links patient perception of care to better health outcomes, including mortality and readmission rates (Isaac et al. 2010; Kennedy, Tevis, and Kent 2014; The Leapfrog Group 2019).

Earning external badges of excellence was not just an end in and of itself for Hudson. It also helped the hospital achieve other organizational goals. Securing the hospital's status as a top healthcare provider could attract patients, which helped the hospital remain financially solvent. This was especially useful when the patients it attracted were high-paying, thereby balancing out the care Hudson provided to its local community, which was largely uninsured or on Medicaid. Moreover, achieving badges of excellence could attract high-quality medical staff, which could further reinforce a reputation for excellence.

Medical Education

As an academic medical center, educating aspiring physicians was central to Hudson Hospital's mission. This fact was highlighted by the rows of framed photos lining the first-floor hallways of graduating classes of medical students, dating back to the 1950s. Hudson's highly ranked medical school and prestigious residency programs were a bragging point for the hospital. These programs had won external badges of excellence from the Accreditation Council for Graduate Medical Education (ACGME) and other evaluating groups.

In residency programs, medical education is typically integrated with patient care duties. Residents apprentice on different inpatient "services" and in different outpatient clinics in their area of medical specialty. For example, internal medicine residents at Hudson Hospital rotated through services such as oncology, cardiology, intensive care, and general internal medicine, typically changing services every 2-4 weeks. Not every inpatient service at Hudson Hospital hosted residents, however, and some internal medicine units were run by hospitalists (fully licensed internal medicine physicians specializing in hospital care), rather than by residents.

General internal medicine was a teaching service. Four medical teams – each composed of one attending physician, one senior resident (in their second, third, or fourth year of the residency program), two interns (in their first year of the residency program), and often two third-year medical students – split care for the patients admitted to the general internal medicine units. Education was integrated into this service in several ways. For example, morning rounds were typically structured as an educational exercise. Interns and medical students took turns presenting patient "cases," and senior residents and attendings took turns quizzing them about their patients. Attendings would often give lectures on morning rounds about topics they thought would be pertinent to their trainees, such as the lesson on hospital economics from attending physician Lee in the introduction to this chapter. Attendings offered feedback to each subordinate member of their team on their medical knowledge and patient care capabilities, something they were required to do by the Accreditation Council for Graduate Medical

Education (ACGME) (Accreditation Council for Graduate Medical Education and American Board of Internal Medicine 2015). They also sometimes tasked medical students with giving research presentations on topics related to the patients on their service. Medical students gave these presentations during morning rounds, and they were usually treated as an opportunity for the whole team to learn more about a topic.

The spirit of learning continued after morning rounds. The internal medicine residency program directors required that residents attend “morning report” every weekday, a noon-time event with free lunch, during which residents listened to lectures, watched their co-residents deliver case reports on interesting patients, and sometimes participated in quiz show-like games. Residents were expected to go to morning report even if they were busy with patient care duties. They signed in upon arrival and could get in trouble with their program if they missed too many morning reports. This was further evidence of the central importance of education to Hudson’s organizational goals: Residents were expected to make learning a priority even when overwhelmed with patient care duties.

Outside of these formal educational structures, residents and medical students took it upon themselves to learn from one another throughout the day. When there was downtime, residents would offer to help medical students prepare for exams and to clarify anything they had been confused about on rounds. Medical students would usually “follow” 1-2 patient cases at a time, meaning that they would present these patients on rounds. Most resident teams allowed medical students to choose which patients they wanted to follow, based on what would be best for their education. At other times, they would save particularly interesting patient cases for their medical students, taking on more routine cases or more difficult patient personalities themselves. This proactive attitude toward learning was beneficial to me as an ethnographer: On several occasions, interns and medical students encouraged me to ask them clarifying questions in order to quiz them on their knowledge. Some thanked me for asking on-the-fly questions. One medical student even wrote me a thank-you card in which she wrote that my questions had been helpful to her educational experience. In this sense, the resident and medical student culture of constantly pursuing opportunities to learn reflected the organizational goal of medical education and enacted excellence in this arena.

Serving the Local Community and Financial Solvency

Providing medical care to all patients and remaining financially solvent were important, if sometimes contradictory, organizational goals at Hudson Hospital. I discuss these two organizational goals together in this section because they were intertwined and often difficult to disentangle. This enmeshing occurred, in part, because the hospital deployed the same strategy to pursue both goals: decreasing patient length of stay by expediting patient discharge. Shorter hospitalizations helped to mitigate overcrowding, a problem that prevented Hudson from being able to provide every patient who walked through the door with excellent medical care. Shorter hospitalizations also helped the hospital save money by cutting the costs associated with inpatient care.

Hudson Hospital assessed every patient who walked through the doors of the ED and admitted every patient who was determined to be sick enough to require inpatient-level care, no matter their health insurance situation. Because Hudson Hospital was located adjacent to a large, low-income area, many of the patients coming to the ED had no insurance, “bad” insurance (e.g., out-of-network insurance and/or private insurance that covered only a very limited amount of healthcare), or Medicaid. Hudson lost money providing care to patients in each of these groups.

Attending physician Trinh explained Medicaid losses to me: “With Medicaid, you get paid 30 cents on the dollar, so every dollar you spend, you lose 70 cents.” While I was unable to verify whether this exact figure – 30 cents on the dollar – was accurate, it was quoted to me by several of the attendings at Hudson Hospital. The fact of Medicaid-related losses was also reflected in the hospital’s annual Community Benefits Report. The 2018 Report described over $300 million in losses due to under- and uncompensated healthcare, about half of which came from caring for the uninsured and those on Medicaid.[1]

The practice of providing care for all patients, no matter their insurance status, did not necessarily reflect an attitude of charity, but rather indicated compliance with a federal policy, the Emergency Medical Treatment and Labor Act (EMTALA), a 1986 law that mandated that hospitals *must* provide care for every patient who comes to their EDs (Zibulewsky 2001). Several attendings shared with me that Hudson had a long history of resistance to this directive. For example, Trinh told me that a former Hudson Hospital president had declared in the 2000s that the hospital was *not* responsible for its local community. “We are an academic medical center. We are not responsible for the local environment that we’re in. We are going to be a star, away from Planet Earth,” said Trinh, summarizing this former president’s attitude as one that prioritized medical excellence over local needs. According to attending Penny, this way of structuring patient care was about maintaining financial solvency as much as achieving excellence in academic medicine: The hospital had been “in the red,” and limiting care to uninsured and Medicaid patients would slow financial losses.

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[1] Hospital underpayment by Medicaid is typical at hospitals across the United States (American Hospital Association 2016, 2017). That said, the “30 cents on the dollar” number offered to me by several attendings at Hudson Hospital is low compared to the national average.

Under the former president’s directive, the hospital reorganized in ways that limited the number of inpatient beds that could be filled by Medicaid and uninsured patients. Penny explained that the hospital president was able to do this without violating EMTALA by designating certain areas of the hospital for certain kinds of patient medical cases, rather than by explicitly rejecting anyone. “We were like, ‘Well, these are our cancer beds, and these are our general medicine beds… You can have this many general medicine patients, and you can’t expand.’” General medicine patients, she clarified, were less likely than cancer or surgery patients to have “good” insurance. During this period, a cancer patient would “go right up from the [Emergency Department (ED)] to their room,” whereas “the general medicine patients, who tended to be underserved, would stay in the [ED] for days.”

Hudson Hospital’s history of dissuading underserved patients from seeking care at its ED was one of several practices that generated animosity between Hudson and the low-income local community, although the particular practice of limiting inpatient beds for Medicaid and uninsured patients had stopped. Penny explained that it ended, in part because of physician resistance: “The doctors pushed back and were like, ‘This is obscene. This is not why we work here. We do not want to work at a place that limits Medicaid.’” Thus, even if some actors wanted to prioritize the organizational goals of medical excellence and financial solvency, many others advocated for providing care to the underserved, even if it made achieving those other goals challenging. Penny considered herself to be among the physicians who fought back against the hospital’s restrictions on admitting underserved patients. She had chosen a career at Hudson partly to help underserved patients. Nonetheless, she acknowledged some baseline truth in the need to save money. “You can’t run a hospital in the red,” she told me. “I realize that the hospital needs to find that balance so that we stay financially stable as a hospital, so that we can continue to serve patients who are underserved."

In the circumstance described, the organizational goals of serving the local community and achieving financial solvency were in tension with one another: providing care for poor patients meant losing money, while saving money meant limiting care to poor patients. During the time of my fieldwork, Hudson Hospital employed several strategies in order to work toward both of these goals. For example, the hospital tried to balance its "payer mix." As Penny explained to me,

> we need about a third Medicare patients, a third private-pay patients, and we can tolerate – that's a bad word – up to a third of bad insurance or no insurance patients, Medicaid or uninsured. And if we go above that third of this population, which we often do, then the hospital loses money.

Hudson was making efforts to "attract" more high-paying patients to the hospital, for example through advertisements on National Public Radio and press releases touting the achievements of its physicians. It also restricted access to its outpatient clinics and to scheduled procedures (e.g., labor induction, colonoscopies, testing) to patients with "good" insurance – Medicare and certain kinds of private insurance. Profit made from the care of these wealthier patients could offset the losses that accrued from the care of uninsured and Medicaid patients in the inpatient hospital.

Another strategy for balancing care for all with financial solvency was to decrease the length of hospitalizations. This has been a common strategy employed by hospitals across the United States to respond to the rising cost of providing healthcare (Light 2000; Litvak and Bisognano 2011; Wertheimer et al. 2014). Patients today are discharged "quicker and sicker" than they would have been a few decades ago (Donelan et al. 2002). Hospitals have achieved this in part by redefining what it means to be well enough to go home (Donelan et al. 2002). At Hudson, expediting discharge meant enforcing strict, conservative definitions of what constituted being “sick enough” to require hospital care. As Walter, an attending, explained, “The goal is to get people out as soon as you safely can, given their diagnosis.” Although there were some clear, set points around what constituted a “safe” discharge, different physicians often held different ideas about when it was medically safe to discharge a patient.

Decreasing length of stay advanced the goal of financial solvency by increasing profit and decreasing losses. As several attendings explained to me, Hudson Hospital was reimbursed by insurance companies based on the average price of care for patients with a particular diagnosis. This system is called “DRGs,” or diagnostic-related groups: Insurance companies reimburse hospitals based on the *average* length of stay for a patient with a given set of primary and secondary conditions (Hardin, Kilian, and Murphy 2017; Vladeck 1984). Attending Trinh walked me through an example of how this works, stating, “If you have a person with a pneumonia, for example, and the average length of stay is about three days for a pneumonia, but your person takes four days, then you’ve lost money on that person.” Getting patients out of the hospital quicker, therefore, could result either in profit or in mitigation of losses. For patients on Medicaid, the “30 cents on the dollar” figure meant profit was rarely generated, but losses could be cut through a quick discharge.

Decreasing length of stay also advanced the goal of providing care for all by making space in the hospital for more patients. Despite the construction of a new one million-square foot hospital building with 250 patient rooms and the opening of a new, larger ED, Hudson Hospital was overcrowded. More patients sought care at the hospital than the hospital had room to treat. In part, overcrowding had to do with Hudson Hospital’s reputation for excellence in patient care: Many patients *chose* Hudson over other local hospitals. Because of its superior patient care technologies, Hudson was able to treat and cure some patients who might perish or receive suboptimal care at other hospitals. Smaller hospitals in the area also recognized this fact and regularly transferred complex patients who needed more intensive or advanced care to Hudson. Overcrowding was also related to decades of economic decline in the area around this hospital: The region's poverty had made it difficult for smaller local hospitals to stay afloat. Several community hospitals near Hudson had collapsed in the several years prior to my study, meaning that fewer hospitals existed to serve the needs of the local community. Hudson therefore treated the patients who were formerly served by now-closed hospitals, one attending told me.

Overcrowding made it challenging for Hudson Hospital to provide excellent medical care to every patient in need who walked through its doors. When all of the inpatient hospital beds were full, patients could experience long waits in the Emergency Department, between the time when they were approved for hospital admission and the time they were actually taken to the inpatient units. On the high end, patients were waiting up to 72 hours during my fieldwork, often in gurneys in the hallway of the ED rather than in hospital rooms. This defied excellence in care. One of my interviewees described the conditions to me as "unsanitary" since patients with potentially infectious diseases were more likely to spread germs if they were not in private rooms. Further, research shows that overcrowding can cause potentially life-threatening delays in medical care (Hoot and Aronsky 2008). For example, overcrowding can lead staff to overlook important symptoms that require urgent intervention (Derlet and Richards 2000). Additionally, patients who grow tired of waiting may simply leave the hospital, even if they are experiencing serious health problems (Lara-Millan 2014; Rowe et al. 2006). In this sense, overcrowding prevented the hospital from being able to serve every patient.

Expediting patient discharge could thus help Hudson Hospital save money and serve a larger number of its patients with higher-quality medical care. As an ethnographer, it was difficult for me to disentangle the extent to which this pressure to expedite patient discharges was motivated by the goal of reducing overcrowding versus by economic goals. The physicians with whom I spoke indicated that they felt both pressures. The pressure to expedite discharge times was communicated by the hospital's central administration to the rank-and-file staff in several ways. First, the hospital's Clinical Operations Committee sent out a page every morning, to every member of staff, telling them how many empty beds the hospital had and how many they would need for the scheduled surgery patients and for the patients being admitted from the ED. Attending Penny read one such page to out loud to me, which concluded with the sentence, "Please facilitate early discharge." She commented, "It's the same pressure every day, you see what I mean? But it's every day telling you how full the hospital is." Attendings did have some power to resist this pressure, Penny explained. "I feel the pressure, but I would never change something for a patient. But if I feel that it's safe and best for the patient because being out of the hospital is safer for the patient, then I will discharge early." With this proclamation, Penny endorsed excellence in patient care as a higher priority than expediting patient discharge.

When the hospital was particularly full, the Clinical Operations Committee could put extra pressure on physicians to expedite discharges with more urgent pages. One day I was shadowing a team of physicians and pharmacists, including attending Trinh and residents Katie, Adam, and Shreya, as well as pharmacist Randy. We were standing in the lobby of the dialysis center, wrapping up rounds, when everyone's pagers went off simultaneously. Adam was the first to reach his, and he read the page aloud: "Be prepared to discharge today. We are on internal disaster alert per senior leadership." The page did not include any additional details, and everyone started speculating about what the internal disaster could be: a terrorist attack? A major accident? Katie made a reference to a "Grey's Anatomy" episode in which the doctors have to take care of victims of a ferry crash. Trinh shared that when she was in medical school, there was a train crash, and the doctors got a similar “internal disaster” page. Even though the train crash victims never came to the hospital, she and her resident team discharged a lot of patients to make room. “It’s a great way to get people out,” she commented. “Patients are more willing to leave when they hear other people who are really sick need their beds. They’ll be like, ‘Oh, okay I can go.’” Trinh and Katie started running through their patient list to determine if anyone could be sent home right away. They decided one patient, Mr. Huston, could be discharged to the waiting room while he waited for his daughter to come pick him up that evening.

Pressure to discharge was also communicated to physicians via multi-disciplinary rounds (MDR), a daily meeting between physicians and non-physician clinicians from several groups, including nurses, nurse managers, social workers, case managers, and sometimes hospital administrators. These meetings were implemented by the hospital’s administration with the express purpose of expediting patient discharge. The goal was to encourage daily communication between physicians and non-physician medical staff (e.g., social workers, case managers, physical therapists, and others), so that – as patients approached the stage of being medically ready for discharge – the non-physician medical staff could make sure that this happened as quickly and smoothly as possible. For example, case managers and social workers might arrange home nursing, placement in a rehab facility, and transportation home. Ideally, the minute the patient was ready to walk out of the hospital, these other things would be in place so that discharge did not get postponed by them. However, these MDR meetings also served as an occasion to put pressure on residents to discharge patients who the MDR staff believed *were* medically ready to be sent home. These kinds of conversations, in which the MDR staff would suggest to residents that certain patients were ready for discharge, happened frequently.

After they received the page about the "internal disaster," I followed Katie and Adam to multi-disciplinary rounds (MDR). Tom, a nurse manager, explained the internal disaster to them: "There are no free beds in the hospital, there are 124 patients waiting in the ED, and there are no post-op[eration] beds. So, we need to discharge!" Tom and his non-physician colleagues maintained serious expressions, indicating that they did not think the "disaster" label was an exaggeration. The residents ran through their patients, explaining that Mr. Huston was the only person they felt they could discharge right away. Yvonne, a social worker, pushed back on this idea for one patient, Ms. Cunningham, who had sickle cell disease and was in the hospital for pain treatment. Adam said he thought she would be ready for discharge tomorrow, and Yvonne commented that yesterday he had said she would leave today. "She's also out of network," Yvonne continued, raising Ms. Cunningham's Medicaid status as an issue for reimbursement. "Is there somewhere we could transfer her to?" Katie explained that they had scheduled a follow-up appointment for Ms. Cunningham at the outpatient clinic of a local hospital that takes Medicaid patients, but they could not transfer her now, while she was still in the hospital. Even though Yvonne framed her comment as being about the need to free up hospital space in order to make room for other patients, the economics of Ms. Cunningham's hospitalization came up, nonetheless. This encounter exemplifies the challenges of disentangling whether pressures around discharge had more to do with financial solvency or with overcrowding.

Finally, pressure to discharge patients was also communicated to residents by their attendings. For example, some attendings used morning rounds as an opportunity to instill in their trainees an appreciation for hospital economics, as in the vignette at the top of this chapter. These kinds of lessons on hospital economics were often embedded, informally, into daily routines of patient care, where they served the purpose of reminding resident physicians of the financial stakes of their efficiency. They were occasionally complemented by formal lectures on these issues at morning report or grand rounds. Overall, these lessons contributed to maintaining a hospital culture in which decreasing patients' length of stay was seen as a central part of healthcare professionals' duties.

Pain Patients as an Organizational Problem

Over the course of my fieldwork, I repeatedly observed that hospital staff viewed pain patients as obstructive to the achievement of organizational goals. Below, I detail how pain patients were conceptualized as a barrier to each of Hudson Hospital's main organizational goals.

Pain as a Challenge to Excellent Patient Care

In my research, pain management presented a conundrum because it could not be objectively measured in the same way as other symptoms. All healthcare workers at Hudson Hospital were well aware of this. They saw the lack of objective measurements for pain as challenging to the pursuit of excellence in patient care because excellence in pain management was poorly defined. Attending Josephine explained that physicians are highly skilled at working with objective evidence, offering the example of creatinine, a waste product in the bloodstream which, at high levels, can indicate kidney problems: "[If] your creatinine is high, I'm going to give you fluids. That's just, like, a very objective measure." Josephine described pain, on the other hand, as "so subjective. It can be so hard to, like, really tease out how much pain a patient is in, what kind of pain it is, what's going to be the best type of therapy for it." In this sense, pain's invisibility made it difficult for physicians to make skillful, expert decisions to treat it.

Physicians could hardly provide these patients with excellent care if they were uncertain what that excellent care would look like.

If Hudson Hospital staff defined excellent patient care as being rooted in evidence-based medicine, the lack of solid, evidence based-research on pain made it challenging for healthcare staff to achieve this organizational goal. As a symptom measured through patient self-reporting, research on pain management is vulnerable to the same subjective differences in how individuals experience and express suffering that make its accurate measurement elusive throughout the healthcare system (Carr 2017; Schiavenato and Craig 2010). Evidence-based guidelines certainly exist for pain management (Wiffen and Moore 2016), but medical researchers recognize that the evidence base of pain research is shakier than that of conditions that can be measured with greater objectivity (Carr 2017). This posed clinical challenges that were felt by all healthcare workers at Hudson Hospital. For instance, resident Nick shared about pain patients, “Those people are challenging because they’re in a lot of pain, and there’s not a lot of great evidence[-based] options to manage their pain.”

Several physicians specifically raised the issue of poor-quality research on sickle cell disease. Sickle cell disease is a genetic and incurable blood disorder that causes severe pain through vaso-occlusion, the obstruction of blood vessels by abnormally-shaped red blood cells, among other medical complications. Sickle cell patients represented the largest group of pain patients on the general internal medicine units. In the United States, sickle cell is generally thought of as a ‘black disorder’ (Wailoo 2001), and all of the sickle cell patients I encountered during my fieldwork were black. Attending Trinh connected the lack of high-quality evidence on sickle cell disease to issues of racial injustice in America. While teaching her residents and medical students during morning rounds, she asked, “Why are there no clinical trials on sickle cell disease?” When no one responded, she said, “Okay, I’m on my left-leaning pulpit today. Who gets sickle cell disease? Poor African Americans.” She explained that research on sickle cell was underfunding because of this. “Why is there so much research on [cystic fibrosis]? It’s mostly kids, and it’s mostly Caucasian. What about leukemia? There’s a lot of money to be made. It really sucks for sickle cell patients.” According to Trinh, these patients were triply disadvantaged in accessing high-quality medical care because of the invisibility of some of their symptoms, their race, and their low socio-economic status. For physicians, the lack of research studies on this group made the goal of proving them with high-quality care especially difficult.

Residents often used best practices guidelines when making decisions about pain, but they also called these guidelines into question because they interpreted the evidence used to develop these guidelines as sub-standard. In general, major, federally funded healthcare research organizations like the National Institutes of Health (NIH) and the Centers for Disease Control and Prevention (CDC) were particularly trusted sources of best practices guidelines for residents. In defending her approach to pain management for sickle cell disease, resident Natalie cited guidelines from the National Heart, Lung, and Blood Institute (NHLBI), a branch of the NIH, that state that sickle cell patients should receive IV opioids until their pain is controlled: “It’s not the best data, but [the NHLBI] do[es] have data [showing] that the earlier and quicker you capture the pain, the shorter the length of stay, the better the quality of care.” Even though she used this information to guide her practice, Natalie recognized that the data were not “the best.” Natalie found that her colleagues often called the efficacy of pain treatment in sickle cell patients into question, something I myself observed on several occasions. With the proliferation of multiple, conflicting standards for best practices in pain treatment by groups like the NIH and CDC, physicians could cite different sources to justify various approaches to pain management.

Some residents who treated pain differently than Natalie referenced the 2016 CDC guidelines (Dowell, Haegrich, and Chou 2016), which stated that patients should always be treated with the lowest effective dose of opioids. They started pain treatment with low doses of opioids and increased the dosage if those did not work, an approach that contradicted Natalie's preference to "capture" pain aggressively and quickly. Nonetheless, both approaches had *some* basis in evidence and in best practices guidelines.

In addition to the lack of a strong evidence base for pain treatment in general, a changing American pain management culture has prompted mainstays of supposedly evidence-based pain management – for example, the idea of pain management as a patient right and the mantra of "pain is what the patient says it is" – to be called into question by healthcare workers throughout the United States (Levy, Sturgess, and Mills 2018; Rubin et al. 2018). The same was true at Hudson Hospital. Anuj, a resident, shared that he thought the idea of pain as the fifth vital sign was "complete B.S." Resident Shreya, similarly, called the 0 to 10 scale into question. "The whole scale, the 0 to 10 [thing] – What is 10? I don't like that scale. I don't like that." As a result, many physicians at Hudson Hospital called into question how pain should be assessed and treated, even when best practices existed that could guide their decision-making. But even though they doubted these methods for assessing pain, they were still widely used at Hudson Hospital.

In my research, hospital staff did not often link pain patients to difficulties in achieving external markers of excellence such as Leapfrog grades and Magnet recognition. As a large medical center with many different patient service lines, pain patients on general internal medicine may not have been a large enough group to be perceived as a threat to these markers of prestige. That said, hospital staff did talk about pain patients as presenting a barrier to achieving some of the metrics that went into hospital grades and other forms of external recognition. For example, data from HCAHPS patient satisfaction surveys were available online, in order to allow potential patients to compare hospitals (Zusman 2012). These data also went into Leapfrog's formula for calculating patient safety scores (The Leapfrog Group 2019). Tom, a nurse manager, reported to me that pain patients often gave Hudson Hospital negative ratings because they were dissatisfied with their pain care. This was especially the case when staff identified them as "drug-seekers" and discontinued their treatment with opioids. In this sense, patient satisfaction surveys encouraged clinicians to capitulate to "drug-seekers," something Tom and his staff were unwilling to do. Satisfaction ratings for his floor took a hit. Tom saw this as a problem for him, personally: His bosses assessed his performance based, in part, on these scores. Low scores made him look bad, although Tom said that his boss understood that he had a "difficult patient population" when it came to these surveys. This was a way in which the hospital administration encouraged individual employees to feel responsible for organizational goals.

Pain as a Poor Learning Opportunity

Physicians sometimes treated pain patients as interesting cases for learning. More often, however, they saw pain patients as either not furthering or actively obstructing their educational goals. This was due in large part to the view of pain patients – and especially those not requiring any medical intervention beyond IV opioids – as not "interesting," from an educational standpoint. Physicians often found patients to be interesting if they had rare conditions or unusual symptoms that fell outside of the pattern of most "classical" medical cases. Attending Josephine sometimes suggested that the medical students on her team do clinical case reports[2] on

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[2] Case reports represent "a cornerstone in medical progress" (Heart Views 2017). They involve writing detailed descriptions of patient cases, including symptoms, diagnosis, treatment, and follow-up and are usually based on new

"interesting patients" (her words). During one rotation, the patients she identified as good candidates for case reports were 1) Ms. Atkins, a patient with hypercalcemia but no malignancy (which Josephine explained was extremely rare) and 2) Ms. Snyder, a patient with a rare virus. The residents and medical students were also excited about these cases. When the lab results came back indicating that Ms. Snyder had the rare virus, resident Natalie exclaimed, "Ooo!" in the resident workroom. It was exciting for her and the rest of her team to work with patients who differed from standard presentations of common illnesses, which represented the bulk of their work.

As a teaching service, general internal medicine was supposed to be allocated a greater share of these interesting cases. A central triaging service assigned admitted patients to different parts of the hospital. Resident Katie explained to me that they were supposed to send "complicated patients who are undiagnosed or whatever" to the residents on teaching services so that they could learn from these cases. The "crappy, non-educational cases" – which Katie explained were simpler, more routine cases like community-acquired pneumonia or urinary tract infections (UTIs) – were supposed to be assigned to the hospitalist service, which was staffed by fully-trained internists. Most pain patients were viewed as routine rather than interesting. This was perhaps especially true of patients with sickle cell disease because they made up the largest group of pain patients on the general internal medicine service. Residents saw a lot of sickle cell patients over the course of their training at Hudson Hospital. On one call shift, Katie's team was assigned three fairly standard sickle cell patients, all of whom were at the hospital for pain management during a vaso-occlusive crisis. After she got the call about the third patient, Katie

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or unusual findings. Writers of case reports can submit pieces to academic journals. At Hudson Hospital, there were also opportunities for residents and medical students to present case reports to peers, for example at daily morning reports.

grumbled to her co-resident Adam that they were not supposed to be assigned these patients in the first place. Residents like Katie felt that care for pain patients could detract from better educational opportunities.

Even if residents did not consider pain management to be interesting, pain was constantly present on the general internal medicine floors. The resident teams I shadowed all provided care for at least three pain patients during their two-week rotations. Rather than viewing more routine cases of severe pain as an opportunity to teach medical students about pain care, the residents often treated pain management as grunt work from which the medical students should be shielded. This was especially true when it came to patients who were angry about not receiving the pain care they wanted. Attendings and residents told medical students not to take on these patient cases and even to stay out of their rooms when the rest of the team was going in. This was also a strategy implemented to avoid making angry patients even more upset. Physicians recognized that it could be overwhelming and upsetting for patients to have a large number of people in their room, all at once.

That said, it would be an oversimplification to say that pain patients were *never* seen as good learning opportunities. On the day Katie's team admitted three sickle cell patients, she met with her team's two medical students, Carter and Nolan, to talk about which patients would be best for them to follow. Katie apologized for the fact that she considered none of the cases to be interesting, but Carter said that he was interested in them. He ended up following one of the sickle cell patients. Trinh, the attending, asked him to do a presentation about sickle cell disease on morning rounds. Carter used the presentation as an opportunity to do research on racial disparities in the healthcare system. He presented about discrimination against sickle cell patients and the widespread belief that these patients were "drug-seekers," despite a lack of evidence.

Carter cited a research study (Ruta and Ballas 2016) that found that sickle cell patients die of opioid overdoses at relatively low rates, indicating that opioid abuse is low among this population. In this sense, not all physicians and medical students took for granted that sickle cell cases were “uninteresting.”

Pain as a Barrier to Care for All and Financial Solvency

Decreasing patients’ length of stay by expediting their discharge was the main strategy the staff at Hudson Hospital used in order to pursue the goals of caring for all patients and remaining financially solvent. For many of the healthcare workers at Hudson Hospital, pain patients represented a barrier to achieving this goal because the invisibility of their condition made it challenging to determine whether or not they truly needed continued inpatient care. The length of hospitalization for pain patients was typically determined based on patients’ subjective self-reports. This practice was consistent with the pain assessment training received by physicians and nurses. Assessing pain in this way made it challenging for healthcare staff to push discharge on patients they thought were well enough to go home: Patients could resist by saying that they were still in 10 out of 10 pain, and healthcare workers had no way to produce objective evidence to contradict them. This led to long hospitalizations for a group of patients who were largely on Medicaid. Treating these patients therefore resulted in financial losses.

Mark, a nurse, illustrated an example of the challenges of expediting discharge for pain patients. During an interview, he told me about an incident from earlier that day: A patient with sickle cell disease had threatened him and some of his nursing colleagues. Mark spoke with that patient’s physician team and raised the possibility of taking the patient off of IV pain medications, transitioning him to oral opioids, and sending him home because of the threats. The patient's resident agreed and said he thought the patient seemed well enough to go home the day before. The attending disagreed, and according to Mark, said, "Well remember [the patient is] here for pain control. Pain is what the patient says it is… So as long as he says he's in pain, he needs that level (IV) of pain medication." Mark rolled his eyes as he described this to me, displaying his frustration with this attending's insistence on following these best practices guidelines.

Staff found the fact that pain patients were able to evade efforts to expedite discharge particularly frustrating because they believed that these patients were, in general, less deserving of hospital resources than many other patients under their care. In the Emergency Department (ED), physicians often divide patients into the categories of "sick" and "not sick" (Brewer et al. 2020). "Sick" patients require the most urgent intervention; they may be dying or are at least experiencing significant threats to their lives. "Not sick" refers to patients who may need emergent care, but whose lives are not immediately at risk. At Hudson Hospital, "sick" patients were generally sent to the Intensive Care Unit (ICU), while the general internal medicine service cared for patients who, by this definition, were "not sick." The general internal medicine staff perceived a different hierarchy of needs among their patients. Patients were generally seen as most in need of hospital-level care if 1) they required extensive medical testing to determine the cause of unexplained symptoms, 2) they were undergoing treatments or procedures that could not be done in the outpatient context, 3) they were being monitored for potential lethal medical complications, and/or 4) they were simply not physically capable of leaving the hospital.

Pain patients did not typically fall into these categories, although they could on occasion. For example, patients with sickle cell disease can develop acute chest syndrome, a potentially-lethal lung condition that requires active monitoring and sometimes intervention by healthcare professionals. The majority of pain patients, however, were only being treated for pain and for no other problems.

Staff sometimes questioned the extent to which pain patients really needed hospital care. I heard residents, for example, say that pain patients were "just" in the hospital for pain management. Resident Katie summarized the attitude of her peers toward these patients as, "I'm not doing anything active for you. Why can't you just go home?" Nurse Britney felt as if often, pain patients did not "need" to be in the hospital, but rather "wanted" to be for a variety of reasons. Britney, speaking specifically about sickle cell patients, told me, "There is a big socioeconomic issue with the sickle cell population. Some of these people that we see are here because their outside life is not what they want it to be, or they don't have a stable home." Although Britney took a sympathetic view toward her patients' miserable home conditions, she believed that this was an inappropriate use of the hospital, especially given that Hudson was overcrowded. If patients were not truly in need of hospital care, then they were seen as taking hospital beds away from those who might benefit more from hospitalization. In this sense, pain patients were seen as using hospital resources at the expense of other, more deserving patients.

Hospital staff also found that pain patients were more demanding and time-consuming than other patients. As a result, they felt that these patients distracted them from their other patient care duties. All nurses and physicians at Hudson carried pagers and used these as a primary means of communicating with one another about patient care. Attending Penny explained that she and her residents got more pages from the nurses about pain patients than other kinds of patients, typically saying something like, "They're having more pain. They need extra doses of medicine." Resident Katie expressed a similar view. She told me that pages for pain patients could be overwhelming and walked me through a typical scenario communicating with a nurse about a pain patient.

> The nurse says the patient's in pain. You go see the patient. He's having terrible pain, so our plan is we're going to increase the dose on this, [and] we're going to change [his medications] around... Two minutes later the nurse pages you again: "The patient's in pain." I know because I just spoke to him! And the drugs haven't worked yet! Give it an hour. Call me again in 30 minutes. Call me again in 60 minutes… I have 10 other people I need to deal with. I can't keep dealing with the same thing over and over again.

Since each page merited a response – and often a visit to a patient's room – receiving many pages about one patient could be a frustrating time sink for residents. Katie also felt that getting too many pages "jaded" (her word) residents:

> They no longer feel alerted to that page… [if] you get a page about someone being hypotensive, you don't want to miss that hypotensive page. That patient is dying. [But if] the patient's in pain? Yeah, treat them with pain medicine. We'll deal with it. But this is a lower priority.

In this sense, Hudson staff felt that pages about pain patients took away from their ability to provide care for other patients they saw as more in need of their attention.

At the same time that hospital staff recognized the organizational importance of discharging pain patients quickly, they also discovered personal benefits to getting these patients out of the hospital. These personal benefits gave them further incentives to carry out organizational directives. Clinical staff throughout the hospital had long, busy, tense workdays. Residents, for example, worked 80 hours per week and sometimes stayed at the hospital for up to 30 hours at a time. Nurses worked three, grueling 12-hour shifts per week. Hospital overcrowding contributed to a feeling that there was an overwhelming amount of work to be done. Resident Shreya shared,

> there are too many patients. I think that the hospital isn't built to handle as many patients [as we get], so I think that there's not enough providers, midlevel providers, physicians to properly care for them. I feel like a lot of the time, people

> are getting stretched quite thin, and I think that extends to the house staff [a collective term for residents].

In the context of already being "stretched thin," many healthcare workers found that pain patients created more work for them because they were "needier" of staff time and more emotionally challenging. Staff also told me that pain patients in general – and especially sickle cell patients – were often more agitated and angrier than other patients, especially when their pain was poorly controlled. Some staff were sympathetic to this, understanding that being in severe pain was an upsetting and frustrating experience. That said, in the midst of a long and busy work shift, during which staff had to maintain emotional composure across a number of interactions with coworkers, patients, and patients' family members, difficult patients could drain their energy.

Anuj was the intern assigned to the case of Ms. Yancey, a woman with pain from pulmonary emboli. On morning rounds, he explained to Josephine, his attending, and Natalie, his senior resident, that he had shared a frustrating conversation with Ms. Yancey the day before, in which he told her he was not going to give her IV opioids because of her history of drug abuse. Ms. Yancey responded to this by saying that she would leave the hospital if Anuj did not give her IV opioids. Leaving the hospital without getting treated would be dangerous because her health condition could kill her. Anuj stated,

> I went into her room and talked to her, and I was like, "I hate her. I'm not even going to fight her on this [her threat to leave the hospital]." But then I left the room and thought about it and realized that if I didn't hate her, I would try to get her to stay. So, I went back into the room and got her to stay.

Josephine asked, "I don't get it, what does she do to you?" Anuj replied, "She just, like, yells at you and makes you feel terrible." Although the residents recognized that pain patients were often being mean because of their extreme discomfort, they nonetheless felt upset on a deeply emotional level by these kinds of interactions. They therefore benefitted personally from expediting discharge for such patients, another way in which organizational goals were linked to individual motives. Even for “nice” patients, getting them out of the hospital faster could mean that residents would have shorter patient lists, fewer notes to write, fewer orders to enter, and fewer pages to respond to. Residents thus benefitted personally from discharging any patient quickly, but they saw getting pain patients out of the hospital quickly as particularly important.

Opioids as an Organizational Solution?

With pain as an organizational problem, the treatment of pain with opioids could signify an organizational solution. The extent to which hospital staff saw opioids as a way of advancing organizational goals depended on how they were prescribed. Opioids can be delivered via different bodily “routes:” In healthcare settings, opioids are typically given to patients either as oral, pill-form medications or as injectable, IV medications. According to the medical literature, both IV and oral opioids are equally capable of relieving pain (Ruetzler et al. 2014). That said, IV has some advantages over oral in that it is faster-acting. According to my research subjects, patients can usually feel the effects of IV opioids within a few minutes, whereas they might wait up to an hour to get pain relief from oral opioids. Additionally, certain modes of delivering IV opioids give patients greater autonomy over their pain control. IV opioids can be delivered via a patient-controlled analgesia (PCA), a device containing a roughly 24-hour supply of these medications and that allows patients to deliver themselves additional doses with the push of a button.[3] This reduces the time that patients have to spend in pain, waiting for additional doses of

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[3] PCAs can also be set up to deliver opioids continuously or automatically, at set times. I never saw them used this way during my fieldwork. Instead, they were set up so that the patients could self-deliver more opioids at set intervals, for example, every 15 minutes.

medication. It also enables healthcare workers to spend less time delivering patients pain medications.

Typically, patients can only receive IV opioids in the inpatient setting, where healthcare staff can monitor them closely. At Hudson Hospital, many patients were on both oral and IV opioids. But while patients must be in the hospital while on IV opioids, they do not need to be in the hospital to be treated with orals. Patients can take oral opioids in the hospital or at home. The healthcare workers at Hudson Hospital saw transitioning pain patients off of IV opioids and onto only oral opioids as a key step in preparing them for discharge. Once patients were on orals, they no longer had an “inpatient indication,” or a reason to need hospital-level care, meaning that their insurance companies would reimburse their care at a lower rate.

These circumstances gave way to implementing two primary strategies for using opioids to solve the organizational problems caused by pain. One strategy emphasized being permissive with IV opioids in the inpatient context and trying to minimize the extent to which patients were sent home with oral opioids. The other strategy emphasized an early transition off of IV medications and onto orals, at which point patients could be sent home. Below, I describe each of these pain management strategies and show how they advanced organizational goals.

More IV, Less Oral

Prescribing IV opioids to treat severe pain in general internal medicine patients helped healthcare staff work toward several organizational goals. For one, physicians found that this approach to pain management allowed them to pursue the goal of excellence in patient care, even though excellence in pain care was generally poorly defined. Physicians responded to the lack of clear evidence informing best practices for pain management by developing “schools of thought," or approaches to the uncertainties of the medical profession that allowed them to "be comfortable" with their decision-making, even if they could not be certain that it represented "excellence" in patient care (Light 1979). Two physician schools of thought emerged around the use of IV opioids on Hudson Hospital's general internal medicine unit. First, a smaller number doctors took on the point of view that the use of *all* opioids should be minimized. For example, attending Josephine, who was a recent graduate of Hudson Hospital's internal medicine residency program, described herself as a pain management minimalist. "I think [being conservative with opioids] is overall the right thing to do because they are a dangerous medication," she told me in an interview. "I tend to be more on the 'I'm not going to give you opioids' side [of the spectrum]." Nidhi, a resident, deployed a similar strategy: "I always try to use opioids as my very last resort for patients and to make sure that we thought about trying all kinds of other stuff before we go to opioid pain medications." This cautious pain management strategy reflected guidance from the CDC stating that patients should generally be treated with the lowest effective dose of opioids (Dowell, Haegrich, and Chou 2016).

The second, larger school of thought around using IV opioids for pain management emphasized the inpatient setting as a relatively safe place in which to prescribe these medications. According to this group of physicians, the outpatient setting – where patients could consume opioids without medical supervision – was where patients were more likely to become addicted to, overdose from, and abuse opioids. For instance, resident Jonah told me, "I'm personally pretty liberal in pain medicine, especially in the hospital, because we're monitoring [the patients]. We're giving it to them. There's less of a chance of abuse… If a patient's in pain, the hospital is a safe place to give [them opioids]." While Jonah did not think that giving IV opioids was not entirely without risk, he felt that surveillance within the hospital reduced the likelihood that patients could be harmed by these medications. Similarly, attending Trinh said that she is more permissive in how she gives opioids in the inpatient setting because she sees it as a “very temporary problem.” At the same time, Trinh praised the hospital’s new policies for limiting outpatient prescriptions to one week’s worth of pills, an initiative put in place in order to curb opioid abuse and illegal distribution. Describing her own approach to sending patients home with opioids, she said, “I will give you seven days, or, for a chronic pain patient, I will give you seven days with a higher dose and then your regular dose afterwards, because that should be all you need… I give seven days, and that’s it.” For physicians like Jonah and Trinh, the evidence-based medical research on pain management was clear in indicating that oral opioids in the outpatient setting were the most dangerous for patients.

Physicians in this group also emphasized the potential dangers of undertreating pain in the inpatient setting. They worried, for example, that a cautious approach actually provided little relief to patients in severe pain and could prolong suffering unnecessarily in some cases. For example, resident Rachel explained to me the importance of quickly “capturing” initial pain upon a patient’s arrival in the hospital, especially in cases of extreme, multi-day pain, as occurs in patients with sickle cell disease. Rachel told me that sickle cell patients can take longer to get out of their pain crises if they are not given IV opioids up front. This delay could actually prolong hospitalizations, making these patients ultimately more costly, a challenge to the goal of financial solvency. Resident Nick framed the importance of treating pain in terms of the medical profession’s duty to its patients. “Honestly, our whole job is to make people feel better,” he told me. “So, if you’re not managing someone’s pain that came in the hospital for pain, you’re not doing your job.” In contrast to those who endorsed a cautious and conservative approach, physicians in this second school of thought made an argument for starting patients on more potent pain killers (like IV opioids) earlier on in their treatment, at least in certain cases.

Despite the differences between these two schools of thought, they agreed on one point: The number of opioid pills with which patients were sent home should be kept to a minimum. Oral opioids represented the greatest danger to patients, in terms of addiction and overdose. Providing excellent patient care meant minimizing the extent to which patients were sent home with oral opioids.

The strategy of being permissive with IV opioids also helped healthcare providers work toward the organizational goal of providing excellent care for *all* of the patients under their charge. It was widely recognized that poorly controlled pain caused patients to be dissatisfied with their care to the point of being angry with staff, and that this anger from patients was a source of distraction, frustration, and burnout for clinicians. IV opioids could help resolve this drain on staff. They could placate patients, at least temporarily; patients on effective, fast-acting pain medications were less likely to complain to the staff about their pain, resulting in fewer visits to the patients' rooms and fewer pages between nurses and physicians. Nick explained, "Patients are happier in the short term with [opioids]." Happy pain patients helped physicians manage their heavy workload, allowing them to give more attention to the rest of their patients. Resident Shreya found that she was tempted to give IV opioids even when she did not necessarily think it was the optimal choice for her patients because doing so enabled her to focus on the other tasks at hand:

> It's frustrating to get paged about [pain management] and deal with it. I know it's like – and I'm only saying this because this is anonymous, [but] sometimes you're just like, "All right, whatever. I don't want to deal with this anymore" […] When you have to be on hold for 30 minutes to do this, and you have to have this family discussion, and this person is yelling at you…when all of this stuff is going on, if I'm getting five less pages a day because this is just taken care of, fine.

In this sense, giving patients opioids, especially fast-acting and highly effective IV opioids, could make it so that busy residents had one less problem to deal with. Nurse Mark told me that he had witnessed many physicians decide to give patients opioids "inappropriately" simply because they wanted to reduce their own workload by "appeasing" them (his words). "Our physicians are probably extremely busy, and they don't want to deal with the ramifications of a patient being upset and going back and forth," he told me. "They know [if they do not give opioids] it's going to be pages from the nurse saying the patient is upset…I think they would rather just appease and move on." This "appease and move on" strategy may not have aligned with the ideal of medical excellence, but it allowed physicians to concentrate their efforts elsewhere, sometimes on patient situations deemed more deserving of their attention. At the same time, appeasing patients may have been tempting because it led to patient satisfaction, something external organizations like the Leapfrog Group took into consideration when calculating designations of hospital prestige.

Appeasing challenging patients also made work easier for nurses, who tended to "bear the brunt" of handling difficult patient encounters, in the words of one nurse. IV opioids could also reduce the number of tasks nurses had to balance if they were prescribed via a PCA. This would mean that nurses did not have to spend time giving patients additional doses. Again, using PCAs enabled nurses to balance their duty to all of their patients by freeing up time that might otherwise be spent managing the demands of unhappy pain patients. It also carried potentially positive implications for external markers of prestige, like Magnet designation, which took nursing burnout and job satisfaction into account. In this sense, prescribing IV opioids might also have positive financial implications for Hudson Hospital, insofar as external markers of excellence attracted high-paying patients to the hospital. That said, my subjects never expressly linked the use of IV opioids to these external designations of excellence.

In sum, many healthcare workers – primarily physicians – found that a permissive approach to IV opioids could help advance the organizational goals of medical excellence, providing care for all, and financial solvency. These goals shaped their decision-making around pain management, encouraging them to give patients IV opioids as opposed to orals.

Less IV, More Oral

Many other healthcare workers thought being generous with IV opioid prescriptions exacerbated the organizational problems posed by pain patients. Because patients had to be in the hospital while on IV medications, permissive approaches to pain management could extend hospitalizations. Speaking specifically about sickle cell patients, resident Elizabeth told me that the practice of giving patients PCAs "for as long as they needed it" could lead to "long hospitalizations, just because it does take some time to get pain under control." Extending the hospitalizations of pain patients was undesirable because it contradicted the hospital-wide initiative to expedite patient discharge, an effort in place to mitigate overcrowding and reduce losses from Medicaid and other insurance shortfalls. In this sense, expediting patient discharge advanced the organizational goals of providing care for all patients and maintaining financial solvency.

Not only did staff believe that pain patients stayed in the hospital longer when they were being treated with IV opioids, but they also believed that this form of treatment encouraged pain patients to seek care at Hudson Hospital *repeatedly*. Nurse Graciella informed me that Hudson had a more permissive IV opioid policy than other local hospitals, which she felt was an invitation for pain patients to seek care there, rather than elsewhere. She explained that pain patients on Medicaid were *supposed* to go to State Hospital, a public safety net hospital a few miles from Hudson, because that hospital was reimbursed for Medicaid patients at a higher rate than Hudson. Graciella shared the story of a recent incident in which she objected to a physician's decision to prescribe IV opioids to a particularly difficult patient. According to Graciella, the doctor told her, "The quicker we give [pain patients] what they want, the quicker they leave." She responded, "And then [they'll] come back!" Graciella's comment highlighted an operative goal – an unofficial goal that organizations nonetheless pursue with their activities (Perrow 1961) – at Hudson Hospital: to discourage certain patients, particularly poor patients with no insurance or bad insurance, from seeking care there. This operative goal stood in contrast to the official organizational goal (Perrow 1961) of providing care for all and reflected the aims of Hudson's former president, who sought to restrict care for patients on Medicaid.

For some members of the staff, the solution to these problem was to switch patients to oral opioids, which would allow them to be discharged sooner. The *only* reason to be in the hospital for many patients in severe pain was to receive IV opioid therapy. Transitioning them off of IV opioids and onto oral medications could thus move them from a situation of requiring inpatient hospitalization to one where inpatient hospitalization was not necessary. For example, nurse Mark suggested using the strategy of transitioning a pain patient to orals as a way of "getting rid" of the patient who threatened him in the excerpt on page 53. In addition to advancing organization-wide goals, Mark also saw this tactic as a way of protecting him and his fellow nurses from the burnout they felt when treating pain patients. Even though giving pain patients IV medications often placated them, Mark explained to me that this was a short-term solution. He shared that, in his experience, the nurses were often the ones asking the physicians to transition patients to oral opioids, even though that is "inherently going to upset the patient," and the nurses will have to "deal with that." But, he explained,

> [removing patients from IV opioids] is the ultimate thing you need to do in order to get the patient out. So, we're kind of like, "We got to do it. Let's do it. Stop pulling the Band-Aid off slow," you know?... There are selfish reasons there, you know? We want to be compassionate, but we also want to get them out as soon as possible, and we don't want them to manipulate the system because we may be getting burned out dealing with them.

Thus, Mark saw removing pain patients from IV opioids as a way to save himself and his colleagues from the emotional exhaustion he associated with caring for this group. Even if removing patients from opioids might result in angry outbursts, this ultimately resulted in less emotional labor for staff than the slow daily work of providing care for them. Although discharging these patients faster did not result in shorter workdays for nurses (as it did with residents, who could go home sooner if they had fewer patients), it could mean that their workdays were less tense and slower-paced. These benefits reinforced the individual incentives to carry out organizational goals associated with expediting discharge for pain patients.

On top of that, hospital staff also believed that denying patients IV opioids could prevent them from showing up on the general internal medicine units in the long run because patients would stop coming to the hospital if they suspected they would not be given medications more powerful than those they could take at home (e.g., oral medications prescribed in the outpatient setting). Thus, some members of staff advocated for taking patients off of IV opioids and transitioning them to oral medications faster (or, in some rare cases, taking them off of opioids altogether). This view is something I will explore in greater detail in Chapter 3.

In sum, some healthcare workers – primarily nurses and nurse managers – found that restricting the use of IV opioids and quickly transitioning patients to oral opioids could help advance the official organizational goals of providing care for all and financial solvency. Further, they believed that this practice could also help them achieve an operative organizational goal: discouraging certain "undesirable" patients from seeking healthcare at Hudson Hospital. This strategy, however, faced two obstacles, already outlined in this chapter. First, many physicians felt it was their professional duty to follow best practices guidelines and treat pain according to patients' self-reported pain scores, at least in the inpatient setting. If patients with underlying conditions like pancreatitis or sickle cell were reporting severe pain, most physicians believed it was appropriate and often necessary to provide them with IV medications. Unless there was good reason to doubt these pain scores, they advocated for this approach, regardless of what it meant for workload, overcrowding, and finances. Second, transitioning patients to oral medications meant sending them home with these drugs, a practice contraindicated by CDC guidelines under the opioid epidemic (Dowell, Haegrich, and Chou 2016).

It should be noted that I never heard anyone connect either of these opioid strategies to the organizational goal of medical education. That does not necessarily mean that there was no link, however. It is possible, for example, that part of the reason many residents advocated for a permissive IV opioid strategy was that they felt that placating patients gave them more time to focus on their educational endeavors. Certainly, the actors most invested in medical education as an organizational goal were the same ones who saw IV medications as the best way to treat severe, acute pain. But none of my subjects ever stated this explicitly.

Conclusion

In this chapter, I showed how healthcare workers constructed pain as an organizational problem. Even though care for pain patients was encompassed within some of Hudson Hospital's organizational goals, it also represented a barrier to patient care excellence, medical education, proving care for all, and financial solvency. This view stemmed from several beliefs about pain patients: that their cases were less medically "interesting" than those of other patients; that they were more “difficult” than other patients; and that they were less “deserving” of hospital-level care. These beliefs were, in turn, shaped by several external constraints, including hospital overcrowding and a lack stemming from pain’s invisibility of solid, evidence-based medical research.

Healthcare staff imagined that opioids could help solve the organizational problems caused by pain, but in two contradictory ways. One group, dominated by physicians, thought that the best strategy to advance organizational goals was to be permissive with IV opioids in the hospital but conservative with sending patients home with oral opioids. The other group, dominated by nurses and managers, thought that reducing IV opioids and prescribing more oral opioids (to be taken at home) was the better strategy for advancing organizational goals. As I will show in Chapter 2, these groups often came into conflict around a subset of pain patients who were suspected of “drug-seeking” behavior.

CHAPTER 2: ASSESSING THE LEGITIMACY OF PAIN

When I interviewed Natalie, a resident physician, in December 2018, I asked her to explain her concerns when prescribing opioids to patients in the hospital. It was 7am, and we sat across from each other at a booth in one of Hudson Hospital's lobbies. People – presumably family members of patients – were asleep on sofas around us. Out of respect for the sleepers, Natalie spoke at a near whisper when she told me, "There's a fair amount of data on the people that get addicted. It's unpredictable, but there are things you can look for." She delineated several examples of the evidence she and her colleagues used when gauging whether a patient is a good candidate for opioids. For example, she avoided prescribing opioids to patients with a history of drug addiction because they are at "higher risk" to have their addiction exacerbated or re-triggered by exposure to opioids in the medical setting. Natalie saw this as a place where physicians could intervene in the opioid epidemic. "It very much starts with us [doctors] just trying to avoid the inappropriate prescription as much as possible," she shared. This statement implied that patients could easily be divided into the categories of "appropriate" for treatment with opioids and "inappropriate" for treatment with opioids. In my observational research, healthcare workers often made this distinction by labelling pain patients as either "legitimate" or "drug-seeking." "Legitimate" pain patients were seen as those who were truly in pain and at the hospital with the intent of having their pain alleviated. "Drug-seekers" were patients who were at the hospital with the intent of getting opioids for the high, whether they were truly in pain or not.

In this chapter, I examine how healthcare workers assess pain, label pain patients, and navigate the relationship between labels and actions. As an organizational process, labelling is an important step in deciding which actions to take (Heimer and Staffen 1995, 1998). Negative or deviant labels – like "drug-seeker" – mark people for exclusion (Emerson and Messinger 1977).

However, in healthcare, labelling pain patients as either “legitimate” or “drug-seeking” is challenging because clinicians cannot measure pain objectively. Healthcare workers cannot know definitively whether patients reporting pain are really experiencing this symptom, nor whether they want opioid medications for pain relief, for their euphoric effect, or for both. Making sense of intent was especially challenging on Hudson Hospital’s general internal medicine units because the majority of patients admitted for pain management had “visible” underlying conditions – for example, sickle cell disease, pancreatitis, pulmonary emboli – that were plausible sources of pain. According to inpatient care guidelines for patients with conditions like these, healthcare workers are supposed to assess these patients by asking them to numerically rate the severity of their pain and then treat the pain based on this rating (Schiavenato and Craig 2010).

As I show in this chapter, healthcare workers did not trust self-reported pain scores as “primary evidence” of patient intent. Instead, they drew upon a number of different kinds of “secondary evidence” – such as patient affect, physical embodiment of pain, and medical history – in order to verify whether their patients were “really” in pain. I examine how healthcare workers connected these disparate pieces of information about patients into an “evidentiary gestalt” (Timmermans 2006) that resulted in patients being labelled as “drug-seekers.” I find that this process appeared to disadvantage black patients, who were more readily framed as “drug-seekers,” and to advantage white patients, who were more often labelled as “legitimate,” even when they displayed behaviors associated with “drug-seeking” behavior. I conclude by discussing occupational differences in how healthcare workers labelled patients and whether they believed that deviants – “drug-seekers” – should be evicted from the hospital.

Assessing Pain at Hudson Hospital

To determine conclusively whether a patient was in pain, healthcare workers would need an accurate and objective measurement tool. In the absence of such an instrument, they often ask patients to self-describe their pain. At Hudson Hospital, healthcare workers assessed pain using numerical scales: They asked their patients to rate the severity of their pain on a scale from 0 to 10, with 0 being no pain at all and 10 being the worst pain imaginable. Numerical pain assessment scales became ubiquitous in American hospitals as a result of the "pain as the fifth vital sign" movement of the 1990s and early 2000s (Schiavenato and Craig 2010). Their use became an institutional mandate in 2000, after the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) released its new requirements for pain management in hospitals (Joint Commission on the Accreditation of Healthcare Organizations 2001). According to these standards, healthcare providers were supposed to trust patients' self-reported numerical pain ratings and make decisions about treating their pain based on them. In light of the opioid epidemic, the healthcare world has called the efficacy of these scales into question, linking them to the overprescription of opioid medications (Baker 2017; Lucas, Vlahos, and Ledgerwood 2007; Manchikanti et al. 2012). But, as of 2019, new processes for assessing pain had not permeated the healthcare system.[1] At Hudson, numerical pain scales were treated as though they were still the "gold standard" (Schiavenato and Craig 2010) of pain management. Healthcare workers used these scales regularly to assess pain, to evaluate how well medications were

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[1] That is not to say that there are zero alternatives to using unidirectional pain scales. For example, some systems for assessing pain focus on the extent to which pain is affecting function (Rouse 2009). Instead of asking patients to rate the severity of their pain and treating the number, healthcare workers ask patients about how pain is limiting their activities of daily living. They then use opioids to improve patients' ability to achieve greater function. At the time of my fieldwork, this way of assessing pain was not being used on Hudson Hospital's adult general internal medicine units.

working to treat pain, and to track pain across multiple hospitalizations. In other words, patient self-reports were treated as primary evidence of pain.

Use of numerical scales to assess pain was not just ubiquitous within Hudson Hospital; it was written into the training that healthcare workers received at Hudson and elsewhere. Many members of Hudson Hospital's staff recalled receiving training that encouraged them to trust patients' responses to these questions, no matter what their own judgement of the situation might be. Manny, a nurse who had been practicing for three years, explained to me, "The way that [nurses] are trained – and I'm not sure how the doctor is trained to see pain – the patient's pain is whatever they say it is. So, they can tell you it's a 12 out of 10 or tell you it's a 20 out of 10, and you see them, they're relaxing and sleeping, and you still gotta believe them." Mark, who had been working as a nurse for twelve years, echoed Manny: "Even in nursing school, you're taught that pain is subjective. So, pain is what a patient tells you it is. To say otherwise is to put potentially frustrating mental work into deciphering whether or not the patient has anything else going on that may keep them here." Other nurses confirmed that, as the "caring profession," they had learned the importance of listening to, trusting, and respecting their patients' subjective accounts of their own experiences.

Similarly, most physicians had received some kind of training on the importance of trusting patients and treating self-reported pain scores. For example, Irene, an attending physician who had trained at Hudson Hospital in the mid-2000s, reported that the idea of "pain as the fifth vital sign" dominated the conversation about palliative care when she was a resident. "[Back then,] we were like, 'Treat pain, treat pain! Someone has pain, you throw meds at them,' you know what I mean? So, I had my medical coming-of-age in an era when we were treating pain very aggressively with IV opioids." It is significant that many of the attending physicians I interviewed were trained in a more permissive era of pain management. Even though attendings like Irene acknowledged that the approach to opioids they had learned came with many drawbacks, they sometimes passed the same message down to their residents. Although residents were in training (and had attended medical school) during the time of the opioid epidemic, when a lot of the "pain as the fifth vital sign" logic was being called into question, many of them continued to be taught the importance of trusting patients and basing pain treatment on patients' self-reported numerical pain ratings.

Even though they used numerical pain scales, several members of Hudson Hospital's staff doubted whether the numbers they produced were valid. For example, in Chapter 1, I quote resident Shreya as saying, "The whole scale, the 0 to 10 [thing] – What is 10? I don't like that scale. I don't like that." In practice, healthcare workers frequently called into question patients' self-reported pain scores, especially when patients claimed that they were experiencing "10 out of 10" pain. Physicians, nurses, and others often did not believe patients' self-reports, for a number of different reasons. Some thought patients simply did not understand how to use a 0 to 10 scale to describe their pain. For example, after leaving the room of a pain patient, attending Trinh told her resident, "The patient doesn't understand numbers… she doesn't really use them the way we use them. She's not using an ordinal scale where there's the same distance between one and two, and two and three. So, don't use her numerical scores." In other instances, healthcare staff called self-rated pain scores into question because they thought that many of their patients were exaggerating them for access to opioids. I will present several examples of this in the sections below.

Verifying Pain Scores

Because healthcare workers did not trust patient self-reported numerical pain scores, they drew on secondary evidence to assess the validity of self-reports. They triangulated patient intent – whether patients had "legitimate" pain or were "drug-seeking" – from a combination of physiological and physical cues, patient knowledge about opioids, patient affect, and medical history. Below, I describe these forms of secondary evidence and discuss how they were used to label patients.

Physiological Cues

Some physicians stated that they could render pain visible through medical imaging, vital signs, and laboratory testing (labs). Some of this testing could be used to verify whether a patient had an underlying illness that could be a probable cause of their pain. When I asked Rachel, a resident, about how she assessed whether a patient's self-report matched reality, she replied, "You can always correlate it with other imaging or testing that you're getting done. If there's clearly something there on imaging that could cause that kind of pain, that will work well." Thus, even if pain itself could not be made visible, healthcare teams could sometimes visualize a plausible cause of pain that lent legitimacy to the patient's self-report.

Other physicians told me that they try to render pain visible through labs that enabled them to track the progress of an illnesses. For example, resident Nidhi explained that pain associated with sickle cell disease can sometimes be verified by testing a patient's blood. Results of blood labs had the potential to reveal whether or not patients were experiencing a vaso-occlusive crisis, a painful blockage of blood vessels caused by sickled red blood cells. She stated,

> we measure what their hemoglobin is, and if their hemoglobin has dropped significantly from their baseline hemoglobin, then that is a suggestion that they

> have more sickled blood cells, or clumped blood cells and, you know, that they are in crisis, that their blood counts are lower than what their baseline blood counts are… that's something you can trend and say, "Hey, you know, today when they're saying they're in crisis, their hemoglobin S is at 80 percent, while two months ago when they were doing well and saw their outpatient provider, their hemoglobin S was only 50 percent." And that's an indication that they are in fact maybe in crisis.

Even though Nidhi expressed faith in the accuracy of this kind of testing, she also clarified later in our conversation that it was possible for sickle cell patient to be in crisis even if their hemoglobin measurements indicated otherwise. Thus, these measurements were only a sign that a patient's self-reported pain was "maybe" "legitimate."

Vital signs could provide a further window into patients' subjective states. Elizabeth, a resident, explained to me, "You try and go off of the vitals, you know. You see if [the patient's] heart rate is up, their blood pressure is up, if they're tachypneic or breathing really fast, and that will kind of give you more of an indication whether or not [the pain] is real." For Elizabeth and other residents, "real" pain often made a measurable impact on patient physiology that could be measured objectively, allowing hospital staff to verify subjective self-reports of pain. That said, Elizabeth's use of the word "try" indicates that these kinds of efforts were not always successful; pain sometimes eluded these kinds of measures. The problem was that patients living with chronic severe pain often did not have the same physiological reactions to pain as patients who had less experience with pain.

Physicians at Hudson Hospital recognized, therefore, that having "normal" vital signs did not necessarily invalidate a patient's high pain score, especially if that patient had a chronic pain condition like sickle cell disease or pancreatitis. Katie, a resident, explained to me why vital signs were not always a good measurement of the objective reality of pain during an interview. "And then things get presented by the resident," Katie explained. "Something like, '[The patient] appear[s] comfortable. I pressed on their legs and they had no issues. Their heart rate is 60, so they can't possibly be in pain. If you're in pain, you're tachycardic.'"

"Is that untrue?" I asked her.

"Yeah, it is untrue!" Katie replied emphatically. "If I stabbed you and you were in extreme pain," she continued, "you would probably be tachycardic. But you can still be in excruciating pain and not be tachycardic. That's not a sensitive test. And I don't feel comfortable with any of that." In this sense, for Katie and others I observed, vital signs were not always a valid indicator of whether a patient was "really" in pain. The use of vitals for verifying self-rated pain scores put patients with chronic illnesses at a disadvantage.

Physical Embodiment of Pain

Healthcare staff at Hudson Hospital also evaluated the legitimacy of pain by monitoring patients' behavior within their hospital rooms. The architecture of Hudson Hospital allowed the healthcare staff – and anyone passing through the halls – to look at patients without having to enter their rooms. In the older inpatient building, the doors of patient rooms were equipped with windows. In the newer inpatient building, a wall of glass separated patient rooms from the hallway, providing an almost total view of patient rooms to passers-by. This occasionally led to awkward situations when patients would change clothes or put lotion onto their torsos, giving staff a full view of their naked bodies. With mirrors positioned in the top corner of patient rooms, even if patients drew the curtains around their beds for more privacy, staff still had a view of what was going on at the head of the patients' beds.

Nurses and physicians claimed to be able to intuit whether patients were really in pain, based on the position of their bodies and the kinds of physical activities in which they took part.

For nurses, incongruities between how patients acted when they knew they were being watched and when they did not know were the mostly commonly cited form of evidence against patient legitimacy. These healthcare workers were on the patient floors and inside patient rooms much more often than doctors. They were thus afforded many more opportunities to observe how patients embodied their pain and were more often struck by inconsistencies between self-reports of extreme pain and behaviors that did not seem to match those reports. As nurse Mark explained, “A lot of times when people don’t know they’re being watched, they’ll be acting completely normal, like laughing. Their behavior doesn’t portray a person that is a 9 out of 10.” Sometimes, they compared patient behavior to how they themselves would act if they were in severe pain. Nurse Manny stated,

> if someone tells you they’re in 10 out of 10 pain, you can look at their face and you can kind of see if they look like they’re in 10 out of 10 pain. They’ll tell you that, but they’ll be on their phone, and they’ll be texting, and on Facebook, or they’re on phone talking, laughing with their friends, and then they still tell you they’re dying in pain. When *I’m* in 10 out of 10 pain, I don’t want to talk to anybody… I’m very agitated.

Both Mark and Manny held ideal typical images of how a person in pain *should* behave, based on their experience working as bedside nurses and, in Manny’s case, on personal experience. When patient behaviors did not match this image, this served as a red flag to them that pain was being faked or exaggerated.

Some physicians agreed that patients’ physical behavior constituted a useful source of information about the legitimacy of their pain. For example, when I asked Anuj, a resident, how he assessed the legitimacy of pain, he told me, “[When] a patient [is] sitting, looking comfortable, and say[s], ‘I have 10 out of 10 pain,’ but you looked from the room and they [are] just sitting there playing on their phone. So, is that somebody’s who’s in 10 out of 10 pain? Probably not.” Others pointed out to me that physical embodiment of pain was not always useful for all patients. Resident Natalie explained that patients with chronic pain illnesses like sickle cell disease do not “look” as sick as other pain patients because they spend their whole lives living with pain. She shared that, in her three years of experience as a medical resident, her resident and nursing colleagues have often raised doubts about the legitimacy of sickle cell pain. “It comes up at least once in admission,” she complained. “[My colleagues are] like, ‘[The patient] say[s] they’re in 9 out of 10 pain, but they’re sitting in bed… They’re sitting doing their homework.’ And I’m like, ‘Yeah, ‘cause they’ve lived with pain their whole life.’” For residents like Natalie, physical behavior that did not match what might be expected of someone in severe pain was not always useful evidence for assessing the legitimacy of pain. Once again, the secondary evidence used to verify pain scores disadvantaged patients with chronic pain conditions who did not react to pain in the same way as patients who experienced severe pain infrequently.

Patient Knowledge of Opioids

Staff also used evidence from interactions with patients to assess whether or not their pain was “legitimate.” Patients were often interpreted as “drug-seekers” when they requested certain types of opioids, delivery by IV rather than oral, and higher dosages. The opioid family is large and includes a number of different drugs with different degrees of potency and different effects. For example, Tramadol and Norco contain a smaller amount of opioids – and are therefore less potent – than morphine, Demerol, and Dilaudid (also known as hydromorphone). When patients asked for these stronger pain medications, these requests were often taken as red flags for “drug-seeking” behavior. Further, patients who expressed a strong preference – or need

– for IV medications over oral medications were more likely to be seen as exhibiting "drug-seeking" behavior.

Even though both IV and oral medications can be effective in relieving pain, an IV route of administration can be superior, in that it can allow drug delivery to patients who are not able to ingest things orally,[2] and it acts rapidly. However, the same process that makes these medications work so quickly – their immediate delivery of analgesics into the patients' bloodstream – also make them more euphoria-inducing, according to the healthcare workers with whom I spoke. Staff members were convinced that these medications gave the greatest high and that some patients requested IV opioids over oral for this reason. For example, Shreya, who jokingly referred to patients who insisted on having Dilaudid as "Dilaudid monsters" explained to me,

> patients have been like, "I only want the IV formulation," when in reality the oral and the IV formulation, the same dose, it's the same equivalent. But with the oral, they'll have it over an extended period of time. Whereas the IV, it will be an immediate fast-on [and] fast-off, as well. So that's the other thing, when patients are like, "Only IV Dilaudid works for me…" Usually I'll try to compromise. I'll say, "Let's try an oral medication." And they're like, "No." And then it's like, "I'm giving you the same dose of the medication you want. It's the same effect, essentially. The only reason you'd want the IV medication is for that high."

From Shreya's point of view, any instance of a patient requesting an IV analgesic could raise suspicions about the legitimacy of their pain and their motives for requesting pain treatment. Even though oral opioids can also be abused, I never heard anyone raise concerns about the oral opioids' potential to deliver addictive euphoric effects, at least not in the inpatient setting. Hudson Hospital staff never expressed the concern that patients asking for oral medications were

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[2] In hospitals, this is a fairly common state of affairs. Some patients are labelled "NPO" or "nil per os," a Latin phrase meaning they are to consume nothing through their mouths. This includes food, water, and medications. Instead, these patients receive these necessities intravenously. Among pain patients, patients with acute pancreatitis were the most likely to be labelled "NPO," because oral ingestion can exacerbate abdominal pain in these cases.

"drug-seekers," while the legitimacy of patients who requested IV medications was often called into question.

Patients sometimes framed their preference for drugs like Dilaudid and morphine in terms of past experiences and knowing what "works" for them. Patients living with chronic pain disorders, like sickle cell disease or fibromyalgia, have often gone through many hospitalizations where different medications, dosages, and modes of delivery were tried, to varying effect (Barker 2002, 2008; Schulman-Green et al. 2012). Many of these patients have also been prescribed lower dosages of oral opioids at home over the course of many years and have learned how their bodies react to different drugs. However, in the context of the hospital, refusing to try less-potent pain killers being offered by the physicians could raise suspicions. As Adam, a resident, explained that

> refusing any pain medicine except narcotics is kind of a red flag. If you're in pain, then you'll accept different modalities. There are ketamine infusions, topical things you can try, Tylenol, that's like a different mechanism of action. Ibuprofen – also a different mechanism of action. Some people are in a lot of pain. They'll be like, "Yes, let me try everything," if they're actually in 10 out of 10 pain.

Like many other members of the healthcare staff at Hudson Hospital, Adam believed that people in real pain behave in certain, uniform ways. In his construction, "real" pain patients were compliant, open toward "trying" a variety of treatment options, and willing to wait to see if different medications "worked" to alleviate their pain.

On the other hand, patients who did not request opioids in the presence of an obvious and visualizable source of pain were often assessed as both legitimately in pain and as superior managers of their illness. For example, Adam was charged with the care of Mr. Williams, a black patient in his late-40s, whose toxicology report had come back positive for cocaine. Mr. Williams was homeless and after several weeks of walking around in the same pair of shoes had developed medical complications in both feet. Although he reported severe pain, Mr. Williams never asked his nurses or physicians for opioids. Instead, he accepted the Tylenol that his medical team prescribed. Adam, however, had doubts that this was sufficient coverage. On morning rounds, he reported to his attending, "I told him to ask for more pain meds if he needs them. He's a nice guy, I think he needs more pain control and just isn't asking for it." The fact that Mr. Williams was not requesting pain medication seemed to serve as a kind of legitimizing evidence that he could be trusted to take opioids.

Patient Affect

Healthcare staff used patient affect as evidence when assessing the legitimacy of their pain. In general, patients who were seen as "nice" – a category not unrelated to "compliant" – were trusted by healthcare staff, although with some exceptions. Patients whom the staff perceived as "mean" and "angry" were often sources of frustration, and in the context of pain, they came under suspicion for "drug-seeking" behavior more often. Healthcare staff labelled patients as angry when they yelled at staff, cursed, and accused staff of malicious attitudes toward them. At Hudson Hospital, pain patients usually got angry when staff refused to give them the medications that they requested. For many members of the hospital staff, such demands raised doubts about the legitimacy of their pain. For example, resident Natalie was caring for Ms. Washington, a pain patient who had directed many angry outbursts at her residents and nurses, because they did not want to give her IV Dilaudid. When presenting Ms. Washington's case to her attending physician, Josephine, Natalie commented, "It seems like there is some manipulating here, given how angry [Ms. Washington] is getting." In this sense, anger was seen as something that could provide evidence that a patient was not asking for opioids for the “right” reasons.

Threatening to leave “against medical advice” (AMA) after being denied opioids was the most widely accepted evidence of “drug-seeking” behavior among hospital staff. Staff never viewed these patients as acting in response to a desperate need for pain relief – as might have been the intention of the patients themselves – nor as a rational reaction to being denied medical treatment for a documented and deeply experienced medical condition. Rather, it was widely seen as proof that patients were trying to get high on the hospital’s dime. As Anuj explained, “I’ve found that a lot of patients who are trying to work the system… will threaten to leave AMA if they don’t get what they want, ‘cause they know these little pressure points in the system.” Like Anuj, others also told me that patients thought that, if they threatened to leave, the hospital staff would acquiesce to their pain management requests, in order to keep them in the hospital.

Yet, hospital staff also recognized that patients leaving AMA could help them advance organizational goals. First, this choice got pain patients out of the hospital quickly. Second, it removed angry, difficult patients who could be time-consuming and draining. Third, it released residents from the cognitive load of having to decide whether a patient was legitimately in pain, both because the patient was no longer their responsibility and because leaving AMA put the patient definitively in the “drug-seeker” category. Finally, staff also believed that patients who left AMA were unlikely to seek pain relief at Hudson Hospital again. Patients not returning to Hudson Hospital would advance the “operative” organizational goal (Perrow 1961) of limiting the number of low-income patients being cared for at the hospital. However, patients who left AMA often did come back to Hudson Hospital, sometimes even within the same day. It was common practice to call the Emergency Department (ED) when a pain patient left AMA to warn them not to provide the patient with further pain treatment if they showed up again the same day.

For example, I was in the resident workroom with resident Jonah before morning rounds when attending Ursula came into the room and updated Jonah, who had been off the previous day, about Ms. Silver, a patient with pancreatitis. "The situation with Silver got crazy," Ursula told Jonah.

> She turned on us. We explained that we were going to turn off her ketamine and put her on her home dose of pain meds, and she seemed okay with it. But then all of a sudden she freaked out. Damien and I were in the room, and she tried to call security on us [for taking her IV pain medications away]. She was yelling, 'Security! Security!' All these nurses came running in, but when they saw us, they just started laughing. Because it was just, like, me and Damien sitting by the bedside. But then she and her husband got fed up and left.

After leaving the general internal medicine floor, Ms. Silver returned to the ED as though she were a new patient. Luckily, Ursula said, she and Damien had predicted that this might happen and had already called the ED to warn them not to give Ms. Silver more opioids. When she came in, they held her in triage for some time, and when it became obvious that they were not going to give her more pain killers, she left the ED. "I'm not surprised," commented Jonah. "[She was] getting pretty impatient." "My hope is that she won't come back here, now that she knows we aren't going to do anything for her," said Ursula. "Hopefully she just doesn't come back to Hudson Hospital again."

As far as anyone was able to tell me, medical teams could not get in trouble for their patients leaving AMA. Thus, staff used denying suspected "drug-seekers" medications until the point that that a patient left AMA as a strategy to protect the organization from the resource-drain staff felt they were facing from difficult pain patients.

Patient History

Finally, staff used elements of patient history – patients’ past encounters with the medical system – to assess the legitimacy of their self-reported pain. Patient history could be ascertained digitally or by word-of-mouth. For example, physicians could make use of information-sharing systems specific to opioids. Some residents told me about a newly implemented, state-wide opioid prescription monitoring system that allowed healthcare providers to track how often and from whom patients were getting prescriptions. Although residents praised this system for its ability to prevent the abuse of prescription opioids, I never observed it being used by staff working on the inpatient units. Residents told me that the monitoring system was used more widely in the ED and in outpatient clinics.

More often, I witnessed residents drawing on information in the electronic medical record (EMR) to assess the legitimacy of their patients’ complaints. For example, the EMR has made it possible for physicians to track diagnoses, medical testing, and prescriptions across multiple encounters with the healthcare system (Reich 2012). This tracing capacity enables physicians to make more educated and informed choices for patients under their care. It also operates as a system of surveillance and information sharing: Notes in the EMR can include information about how often patients come to the hospital, how they behave at the hospital (e.g., if they get angry at staff or left AMA), if they confess to using or tested positive for illegal drugs, and whether they are suspected of “drug-seeking” behavior. As I noted in the previous chapter, the large majority of resident workdays were spent sitting at desktop computers in the resident workroom, either reading or writing notes in the EMR When residents at Hudson Hospital first admitted new patients, it was typical for them to review their cases in the EMR, reading through aspects of their medical histories in order to gather information that might ultimately assist them in diagnosing and treating the patients. Thus, information from past hospitalizations might inform how residents viewed their patients, even before their first in-person encounter with them.

Similar information about patient history could be shared by word-of-mouth as healthcare staff talked about their patients and collaborated around their care. In general, the nurses were the best record-keepers for information about the frequency of patient hospitalizations and behavior during previous inpatient stays. Unlike the residents, who rotated between different inpatient and outpatient internal medicine units, nurses were stationed on the general medicine unit year-round. They also often possessed longer institutional memories than the residents, who typically only worked at Hudson Hospital for three to four years. While attendings might have had longer institutional memories than residents because of long careers at Hudson Hospital, they typically spent only four weeks of each year “on service” in the inpatient units. Nurses, therefore, saw the same patients more consistently over time.

Information about patients’ previous hospitalizations also spread between residents in the workroom. The workroom consisted of two interconnected windowless rooms, and tables with desktop computers line the walls. Residents spent the majority of their workdays sitting in beat-up swivel chairs in front of these computers, reading or writing notes on their patients – an increasingly central part of medical work. All four general internal medicine resident teams and their medical students shared this space. While teams often tried to sit in a cluster, the space was crowded and chaotic, so they often sat haphazardly, at different ends of the room. As a result, there was a lot of crosstalk about patient cases as members of the same team asked one another questions. Folks could also overhear phone conversations between residents and nurses, consulting teams, and patients themselves.

I was sitting with Katie, a resident, in the workroom on a call day, as she read the EMR for Ms. Cunningham, a patient with sickle cell disease who was waiting to be admitted from the ED. Katie commented to Adam, her intern, that Ms. Cunningham had just been in the hospital four days ago. Anuj, who was not a member of Katie's medical team, was sitting nearby. He told her that he had been on Ms. Cunningham's medical team until she was discharged four days ago.

"What is she in for? Pain?" Anuj asked.

"Yeah, pain," said Katie.

Anuj replied, "She can't be in for pain, we sent her home with 160 tabs of Dilaudid. She is a total faker with her pain."

For Anuj, the fact that Ms. Cunningham was back in the ED trying to get IV opioids after he sent her home with enough oral opioids to last several months suggested to him that she was after the "euphoric" effect of opioids, rather than pain relief. These formal and informal information-sharing systems – the EMR and word-of-mouth – made it possible for patients' primary medical teams to gather evidence of patients' legitimacy before ever making contact personal contact with them.

Healthcare workers used many other elements of patient histories to assess the legitimacy of their pain. For example, they considered whether patients had a history of drug abuse and were more likely to be suspected of "drug-seeking" behavior when they reported pain at Hudson Hospital. Physicians typically first learned about drug use through patient confessions (i.e., during interviews about their social history) and from toxicology reports. This information was always entered in the patient's EMR, where it could inform future providers that they used drugs. Typically, patients with a history of drug abuse – especially heroin and cocaine, at this urban hospital – were more likely to be interpreted as "drug-seekers." Past use raised suspicions about present abuse. Even in cases in which physicians believed that patients were in “real” pain, they often tried to avoid prescribing opioids if the patient had a history of drug abuse because they did not want to feed into or retrigger addiction issues.

Additionally, healthcare workers considered frequency and length of hospitalization when assessing the legitimacy of pain. Patients who sought pain relief at Hudson Hospital frequently – which typically meant multiple times in the same year – were more likely to be suspected of “drug-seeking” behavior than first-time patients. Brandon, a resident, explained to me in an interview, “When you [come into the hospital for pain control] so many times, when you’re a ‘frequent flyer’ in the emergency room… I tend to believe you less and less.” Both physicians and nurses brought up frequent hospitalizations as evidence against trusting patients and against treating them with opioids. For example, during multidisciplinary rounds, I watched as Everett, a resident, presented the case of Ms. Summers, a patient with sickle cell disease who was often referred to as a “frequent flier.” Everett told the multidisciplinary team, “We went down on the pain meds, but then we kept getting pages about her being in significant pain.” Tom, a nurse manager, interrupted him, saying, “Not to marginalize the patient, but I just want to let you know that she has a significant history here… She spends a substantial amount of time at the hospital on a yearly basis.” Tom offered Everett a strategy for getting Ms. Summers off of IV opioids: announcing a discharge date to her and getting her mentally prepared to leave on that day. In this instance, Everett resisted, saying that Ms. Summers had a cough they needed to get under control before discharging her. This case highlights not only how a history of frequent hospitalization could raise suspicions, but also how a history of *long* hospitalizations, during which the patient requested opioid therapy over the course of multiple days, could also lead to the same misgivings on the part of staff.

Similarly, resident Natalie explained that she saw infrequent hospitalization as a sign that a patient was in "really" in pain. She spoke specifically about patients with sickle cell disease, who she felt experienced the most scrutiny. In an interview, she stated,

> there are some people that just, like, universally feel that sickle cell patients are drug-seekers, and I'm like, you know, "Look at them. They don't get outpatient opioid pills. They're not coming in way too frequently. They're coming in when the weather changes, predictably. They really, actually have pain." So, I don't know. It could always get tricky if they were someone that you're thinking was more drug-seeking and were manipulative and trying to make you feel bad so they could get their meds.

Nonetheless, Natalie recognized that even patients with "clean" histories could be called into question based on their behavior toward the hospital staff during their hospital stay.

Natalie's belief that coming to the hospital rarely signified that someone was "legitimate" was another example of how the secondary evidence used to verify pain scores disadvantaged chronic pain patients, like those with sickle cell disease or chronic pancreatitis. Patients with chronic pain had medical histories that were more likely to trigger suspicions of "drug-seeking" behavior. These patients typically required hospitalization more often than other patients and, as frequent hospitalization itself flagged "drug-seeking" behavior, this might render them more vulnerable to being distrusted by healthcare providers. On top of that, frequent hospitalizations lent themselves to more opportunities for surveillance and more chances to be flagged as a potential "drug-seeker" for all of the reasons I described in the previous section.

Labelling Patients as "Drug-Seekers"

Individually, no single form of secondary evidence could cause a pain patient to be labelled a "drug-seeker." Instead, hospital staff had to reach an "evidentiary gestalt"

(Timmermans 2006) in order to reach this conclusion, by bringing together multiple pieces of information that invalidated a patient's self-rated numerical pain score.

Ms. Yancey represented a case where healthcare workers required multiple pieces of information to reach the kind of evidentiary gestalt needed to label her as a "drug-seeker." A black woman in her mid-forties, Ms. Yancey had a long and complicated medical history, including breast cancer, for which she had undergone a mastectomy several years ago, COPD (chronic case obstructive pulmonary disease, a lung condition that can cause coughing, wheezing, and difficulty breathing), asthma, colitis (an inflammatory bowel disease), and multiple DVTs (deep vein thrombosis, a painful blood clot typically occurring in the legs) and pulmonary emboli (painful blood clots in the lungs). On this occasion, she had come to the hospital reporting severe chest and flank pain that her medical team believed was caused by pulmonary emboli. They were able to visualize this condition and thus create a plausible narrative linking her subjective reports of pain to a real cause of pain.

When reading her EMR before admission, intern Anuj noted that Ms. Yancey had a suspected history of drug abuse. He asked his senior resident, Natalie, if they should avoid giving her opioids because of this history. Natalie commented that this case was "unique" because Ms. Yancey had colitis and pulmonary emboli, which are legitimate causes of pain. Both residents continued poring over Ms. Yancey's records. A few minutes later, Natalie called Anuj's attention to something unusual: According to the records from the last time Ms. Yancey was hospitalized at Hudson, the nurses found a white substance in her room that Ms. Yancey claimed was cornstarch. She adamantly denied it was drugs and instead asserted that it was cornstarch, but she did concede that she snorted the cornstarch. Later, in an interview with her physicians, she admitted to using cocaine, but she claimed that she ate it, rather than snorting it. Anuj and

Natalie were in a fit of giggles as they read this story out loud from Ms. Yancey's notes. Beyond finding this story funny, these residents took it as evidence that reinforced the ideas that 1) Ms. Yancey abused drugs, and 2) she was dishonest. Even though they agreed that Ms. Yancey had a legitimate reason to be in pain, Natalie and Anuj opted to treat her pain with Tylenol and oral tramadol, a weaker opioid with less potential for addiction. Ms. Yancey reported to her nurses that this had not relieved her pain.

The next day at morning rounds, Ben, a medical student who had been assigned to Ms. Yancey's case, brought up the possibility of increasing her dosage of opioids. He said to the team, "For the pain, it's tough. [Ms. Yancey] has been refusing Tylenol. But it's tough. Do we just want to, like, give her something? I mean she has a real reason to be in pain." Here, Ben leveraged the objective reality of Ms. Yancey's medical condition as a reason to trust her self-reports of unrelieved pain.

Anuj, however, disagreed with Ben and cited Ms. Yancey's physical embodiment of pain as evidence against the legitimacy of her self-reports. "I don't know," he said, frowning. "When you look in there, she looks comfortable. Then when you walk in – she, like, got into downward dog yesterday when I walked in and was like, 'This is how I've been lying here all day!' And I was like, 'I just saw you. You were lying down.'" He also shared that Ms. Yancey's nurses had reported the same thing and told him that Ms. Yancey had been yelling at them.

Attending Josephine told Ben, "We just can't give her any IV with her history. When I was in there [yesterday], she was like, 'Give me IV Demerol and knock me out!' She was requesting the strongest thing!"

Ms. Yancey's physicians saw her as a "drug-seeker," a view that was further confirmed the next day, when Ms. Yancey threatened to leave the hospital AMA if she was not given IV Demerol.

Ms. Yancey's physicians brought together several disparate pieces of information – her affect, her history of drug abuse, her "unusual" physical embodiment of pain, and her requests for the strongest opioids – to form the evidentiary gestalt to label her as a "drug-seeker." As a result, they chose to treat her with only weak, oral opioids, while at the same time recognizing that she probably was in real pain. In this case, Ms. Yancey was both a "drug-seeker" and a "legitimate" pain patient, but the "drug-seeking" label won out, in terms of her physicians' course of action for treatment. Only Ben, the medical student, questioned whether this was fair, given Ms. Yancey's pulmonary emboli, which he referred to as "a real reason to be in pain." He advocated for treating Ms. Yancey with stronger opioids, but as the most junior member of the physician team, his opinion did not have sway in this situation.

Hospital staff did not label patients as "drug-seekers" this easily in all cases. Residents Katie and Adam were on call when the Emergency Department informed them of a new admission: Ms. Powell, a sickle cell patient in her early 30s. When they arrived at the ED, the emergency medicine resident, Henry, told them about Ms. Powell "I want to warn you – she's been really hostile. She's been screaming and screaming."

When Katie and Adam entered Ms. Powell's room, she yelled loudly, "No one is listening to me! I'm in so much pain, and they haven't giving me anything in hours! No one cares that I'm in pain! You all think I'm some kind of a drug dealer!" She told the residents that opioid PCAs did not work for her, but that her pain would be relieved if she received 2-milligram pushes of IV Dilaudid every two hours. "Pushes" meant that medications were delivered to the patient via an IV route all at once, rather than broken up into smaller, more frequent doses in a PCA. Generally, this method produces the strongest effect. Katie and Adam told her they would see what they could do.

After discussing Ms. Powell's pain needs with a more senior resident, Katie informed Adam that giving Ms. Powell her requested dosage would not be possible – the nurses would not have enough time to deliver IV opioids every two hours. Katie also speculated that the PCA did not work for Ms. Powell because it was too low a dose – PCAs deliver patients a small amount of opioids at regular intervals. Katie hypothesized that the small dose was not enough to "capture" Ms. Powell's pain. Instead, Katie said that the plan would be to "load" Ms. Powell with 4 milligrams of Dilaudid that would last three or four hours. "She has such a high tolerance that she needs a huge dose," commented Katie, justifying her decision in terms that suggested she saw Ms. Powell's pain as "legitimate." After this first push of Dilaudid, Katie planned to give her a PCA. When Katie and Adam told Ms. Powell about the plan to give her a 4-milligram push of Dilaudid, she accepted it and did not argue with these physicians.

When I returned to the hospital on Monday, Ms. Powell was gone. Carter, a medical student, asked me if I had heard what happened with Ms. Powell. "She was really upset with her pain management. She wanted the pushes of Dilaudid instead of the PCA," he explained. "You can feel the effect of the pushes more; it gives a euphoric feeling. She was getting the same amount via the PCA that she would be getting via the pushes, but she felt like the PCA wasn't working because she couldn't feel it." To clarify, I asked whether the PCA delivers smaller doses of opioids than the IV pushes. Carter said that yes, the PCA breaks up the dosage into multiple, slower doses, rather than one big one. It therefore gives less of a euphoric effect. Ultimately, he explained, the physician team decided that Ms. Powell was after the euphoric effect, and that's why she only wanted the pushes. He informed me that she had been to Hudson four times recently and had left AMA all four times. She seemed to have either a physical or psychological dependence on Dilaudid.

In this case, Ms. Powell's physicians initially saw her pain as "legitimate." Even though she was angry and requested specific, strong dosages of opioids, the combined pieces of secondary evidence together did not form enough evidentiary gestalt for Katie and Adam to call her legitimacy into question. Rather, Katie justified these behaviors by explaining that Ms. Powell's opioid tolerance was high due to a lifetime of living with a chronic pain disorder. She and her colleagues re-labelled Ms. Powell as a "drug-seeker" the next day, based on the same behaviors she was displaying in the ED, including repeated requests for pushes of IV opioids, rather than a PCA. It seemed that the continuation of these demands, plus her new threats to leave AMA, influenced and revised their evidentiary gestalt. The initial assessment of this patient's presentation, combined with her diagnosis, led to one conclusion that was modified as new information became available. Here the evidentiary gestalt was not static, but a dynamic process informed by additional data.

Who Has "Legitimate" Pain?

In many cases, "legitimate" pain was not verbally labelled at all. Staff proceeded with treating patients' pain simply, without raising any questions about the validity of self-reported pain scores. For example, Mr. Spencer was an elderly white man admitted to the general internal medicine service after having chest tubes put in following a pneumothorax (collapsed lung). By the time he was brought onto the general internal medicine unit, he was already on a PCA of Dilaudid to treat his pain, and his residents continued this treatment. While Mr. Spencer's residents found him to be “grumpy,” they did not point out any secondary evidence that might cause them to question his pain. They discharged him the next morning, but while we were on morning rounds, Mr. Spencer’s daughter called to complain that he had not been discharged with any painkillers. The resident, Rumana, explained to her attending, Josephine, that Mr. Spencer’s daughter was saying that a doctor told them he would get a pain medication. Josephine opened Mr. Spencer’s electronic file and started looking at his records from the past few days. “I guess I’ll give him some Norco (a lower-potency opioid pill). I’ll just put it in now.” Rumana replied. “Yeah, I guess we did put a hole is his chest. It’s supposed to be so painful (getting a chest tube).” In this case, Mr. Spencer was implicitly labelled as “legitimate,” in that his requests for opioids were fulfilled and never questioned. Patients like Mr. Spencer, whose sincerity was never even discussed, were considered the most “legitimate” pain patients. In these kinds of circumstances, healthcare staff did not raise doubts and prescribed opioids in accordance with patients’ wishes.

In other cases, “legitimate” pain was labelled as such, but only to set patients apart from one another. In an interview, nurse Graciella compared two patients recently under her care, though treated by different teams of physicians. One had sickle cell disease, was a “frequent flier,” and was a suspected “drug-seeker.” Despite that supposition, this patient’s physicians were treating her with IV Dilaudid. The other patient was a young girl with ovarian cancer whose physicians were not giving her IV opioids. Graciella shared that she got “very upset” when she realized that

> they were not giving her any IV medication. They were treating her with Tramadol (a less potent, oral opioid). I feel that if you’re full of cancer, and you have all these tumors in your body, you’re in pain. That’s pain to me. And she was wriggling around, there were real tears, it was legit. What I saw was real pain, but they were not giving her any pain medication that is strong.

Graciella's comment reinforced the idea that a patient's physical embodiment of pain was a useful way to verify self-reported pain scores. Further, it showed that the word "legitimate" was often used to distinguish between patients and place them on a hierarchy of "deservingness," relative to one another.

In my conversation with Graciella, she compared two individual patients who were both hospitalized on the same unit at the time. But other times, patients' legitimacy was stated in order to distinguish them from stereotypical patients within the same illness category. For example, I was at multidisciplinary rounds (MDR) on a Friday when resident Elijah presented Mr. West, a young black man hospitalized for a sickle cell vaso-occlusive crisis. Elijah explained that Mr. West rated his pain as 10 out of 10 when he was admitted to the hospital two days before, but now he was reporting 7 out of 10 pain. Mr. West had told Elijah that he thought he would be ready for discharge by Monday. Elijah added that Mr. West "seemed very reasonable." This kind of statement appeared to position a "reasonable" sickle cell patient like Mr. West against the stereotypical "unreasonable" sickle cell patient. In this sense, the legitimacy of treating Mr. West's pain could not be taken for granted: Elijah had stated his legitimacy (that Mr. West was "reasonable") explicitly.

Many patients were labelled as "legitimate," even though they displayed many "red flags" of "drug-seeking" behavior. Thus, evidence of "drug-seeking" behavior was not deployed evenly and systematically. Specifically, there appeared to be a racial pattern in how evidence was interpreted and how labels were affixed: White patients were labelled as "drug-seekers" less often than black patients, even when exhibiting the same behaviors. For example, Ms. Brautigen, a white woman in her early 40s, came to Hudson Hospital in November 2018 for severe abdominal pain that was believed to be an acute flare-up of her chronic pancreatitis, an underlying condition that can be measured objectively via blood testing and imaging. It was Ms. Brautigen's fourth hospitalization for severe pain within the past year and, according to her, this episode was worse than the prior three. Although the physicians in the emergency room had treated her with a variety of opioids and non-opioid pain medications, Ms. Brautigen claimed that none of those medications had worked. She told the general internal medicine team that only IV Dilaudid worked to treat her pain. Both she and her husband became angry and threatened to leave AMA when the team hesitated to give her this medication. Damien, her resident, shared that things "got ugly" when he told her that they were not going to give her opioids and that she was "screaming" at the residents.

Despite this behavior, Ms. Brautigen was never referred to as a "drug-seeker." Rather, she was framed as having "opioid-induced hyperalgesia," a medical term for someone who can no longer feel the pain-relieving effects of opioids because they have developed a tolerance for them secondary to long-term use. When I asked Sarah, Ms. Brautigen's pharmacist, what the physicians meant by "opioid-induced hyperalgesia," she explained,

> [Ms. Brautigen's doctors] are already giving her so much pain medication at home that she can't feel the effects of it anymore here. She's maxed out – giving her any more would be dangerous, in terms of respiratory suppression. So, they're going to try to wean her off opioids. She will have ketamine to treat the pain in the meantime. And maybe once they wean her off, they could start her back up again.

The morally-neutral, scientific term "opioid-induced hyperalgesia" served to validate the legitimacy of Ms. Brautigen's requests for more potent, IV opioids. By framing her situation in this way, her clinicians suggested that her opioid tolerance was so high, from years of living with severe pain, that she needed stronger medications and higher doses to feel the effect. This rationalization also explained away her anger, which was understood as a normal response to uncontrolled pain, rather than a manipulative strategy to guilt her care providers into giving her more opioids. The “opioid-induced hyperalgesia” framing also shifted any blame or responsibility for her over-use of opioids from the patient herself and onto her care providers. In Sarah’s account, the doctors were the ones who created this problem; now, they were attempting to fix it by weaning the patient off of opioids, with the ultimate goal of being able to make opioids therapeutic for her again.

Ms. Brautigen’s physicians trusted her self-reported 10 out of 10 pain score, despite the presence of several “red flags” that were often interpreted as invalidating the legitimacy of pain: threatening to leave AMA, expressing anger, and requesting high doses of IV opioids. While they decided that they should not continue to give her opioids for pain management, they instead offered her ketamine, an alternative, non-opioid (although still potentially addictive) analgesic. This is a more highly specialized drug that was administered much less frequently at Hudson than opioids such as Dilaudid and morphine. In my time observing at Hudson Hospital, I never witnessed a black patient with severe pain being offered ketamine when opioids were unavailable, or when they were deemed inappropriate.

Another instance of red flags being overlooked – or ignored – was the case of Mr. O’Connor, a white man in his late 20s who was also hospitalized for acute abdominal pain due to pancreatitis. Mr. O’Connor’s pancreatitis was related to a rare genetic condition for which the prognosis was a severely truncated lifespan.[3] Mr. O’Connor reported 10 out of 10 pain, but he refused to try non-opioid medications, expressed a preference for IV Dilaudid, repeatedly asked for more medication immediately after being given opioids, and became irate at and left AMA from another local hospital. At Hudson Hospital, Mr. O’Connor’s wife was expressing a lot of anger, “yelling and cursing” at the staff, according to one resident.

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[3] It should be noted that patients with sickle cell disease also have a genetic condition that causes truncated lifespan. Nonetheless, these patients were frequently cast as “drug-seekers.”

Despite the presence of these red flags, no member of Mr. O'Connor's healthcare team ever raised the possibility that Mr. O'Connor was "drug-seeking," that he wanted the Dilaudid for its euphoric effect, or that prescribing him high doses of oral opioids was anything other than a highly appropriate form of treatment. Rather, his pain and his long-term treatment with IV opioids were consistently treated as "legitimate." For example, I watched as Kendra, Mr. O'Connor's nurse, reported to his physicians that his pain was poorly controlled, saying, "He is needing the IV [Dilaudid] every two hours after taking the oral [Dilaudid]." While in most cases, healthcare staff referred to patients as "reporting" severe pain or "requesting" more medication, Kendra framed Mr. O'Connor's request as a "need," implying total trust in his self-report.

Additionally, at a time when the hospital was putting a 24-hour cap on IV opioid prescriptions because of a nationwide shortage of these drugs, Mr. O'Connor's medical team found a way of circumventing hospital policy, by entering new orders for IV opioids during the overnight hours, when the presence of fewer staff members reduced the likelihood that someone would override their orders. They were able get him five days of IV opioids. I never witnessed a similar exception being made for a black patient. Even as Hudson Hospital staff endorsed the idea that they could "see" whether patients were "really" in pain by reading their behavior, history, and bodily cues, these standards were applied inconsistently and in ways that reflected and reinforced racial inequalities.

While secondary evidence was often used to verify self-reported pain scores, these cases showed that healthcare workers did not deploy this secondary evidence evenly or systematically. When it came to the treatment of black patients, in particular, healthcare workers at Hudson reached the evidentiary gestalt needed to label a patient as "drug-seeker" more readily. When it came to white patients, by contrast, healthcare workers noted the disparate pieces of evidence that could suggest “drug-seeking” behavior but did not connect them in a cumulative pattern associated with patients who should be labelled as “drug-seekers.” Instead, these patients were assessed as “legitimate,” despite evidence that called their legitimacy into question.

Occupational Differences in Labelling and Evicting Deviants

Clinicians from every occupational background at Hudson Hospital took part in the process of labelling pain patients as “legitimate” or “drug-seekers.” Physicians, nurses, pharmacists, and nurse managers largely agreed on the forms of secondary evidence that could be used to verify patients’ self-reported numerical pain scores. However, there were occupational differences aligned with 1) the point at which hospital staff thought that evidentiary gestalt of “drug-seeking” behavior had been reached and 2) what actions should be taken once a patient was labelled as a “drug-seeker.”

Both physicians and nurses complained to me that members of the other profession labelled patients incorrectly. Physicians believed that nurses were more prone to bias against sickle cell patients and that they tended to jump to the conclusion that patients were “drug-seekers” too quickly. For example, a team of physicians prescribed both short-acting and long-acting oral opioids to Ms. Miller, a sickle cell patient in the hospital for a vaso-occlusive crisis. When they realized that Ms. Miller’s nurse was not giving her the short-acting drug, they raised the suspicion that it was a deliberate choice: The nurse thought Ms. Miller was a “drug-seeker” and was withholding medications from her intentionally. As I explained in Chapter 1, physicians at this academic hospital had a strong preference for basing medical decisions on evidence, reflecting the gold standard of medical care (Timmermans and Berg 2003). Some of the physicians I observed found evidence to support the idea that nurses were disproportionately biased against patients with sickle cell disease. Medical student Carter gave a presentation on bias against sickle cell patients to a group of residents and an attending physician. He shared that one research study had shown that approximately 60 percent of nurses believed that 20 percent or more of sickle cell patients were addicts. The residents on his team nodded and said that this finding did not surprise them.

Nurses, on the other hand, shared stories both of physicians labelling patients as "legitimate" and as "drug-seekers" incorrectly. Graciella's story on page 94 shows an example of a nurse becoming upset when physicians labelled a patient she had thought of as a clear "drug-seeker" as "legitimate" and treating her with opioids. Nurse Manny described feeling frustrated during several incidents in which physicians decided patients were not "legitimate" and therefore did not treat their pain. In fact, he described this as one of the principle challenges of his work:

> The main challenge is kind of, like, coming to the doctor and being like, "Hey man, I gave him this 1 milligram of Dilaudid. It's not doing anything."… and they're saying, "Well, we don't want to give him too much." I'm sitting there looking at the guy, and he's reeling in pain… That's really the main challenge. These [patients] can be very emotional, very agitated. [I have] a lot of sympathy for that. They're hurting.

Nurses spent more time with patients than did the physicians, who might be in each of their patient's rooms for only a few minutes per day. As a result, they often felt uniquely qualified to evaluate their patients' subjective status and to speak to the doctors on their behalf. Although nurses were rarely involved in decision-making processes when it came to pain management, they often developed opinions about how pain management should proceed. In our conversations, they would sometimes express outrage in cases where they felt the doctors were not prescribing these medications appropriately. When nurses held suspicions about patients, they would report these concerns to patients' primary medical team and to their nurse managers, Tom and Jennifer, who could lobby the doctors on the nurses' behalf to discontinue opioid therapy during daily multi-disciplinary rounds. Doctors could then take this into account when making decisions about prescribing opioids, although they were not always persuaded to discontinue pain medications based on nurses' suspicions. That said, I often heard physicians bring up evidence provided to them by nurses when deciding whether or not to label patients as "drug-seekers." In the case of Ms. Yancey, earlier in this chapter, Anuj shared with his team that Ms. Yancey's nurses had seen her acting bizarrely and that she had been yelling at them. This was part of the evidence he used when labelling her as a "drug-seeker."

In organizations, negative labels mark deviants for exclusion (Emerson and Messinger 1977). At Hudson Hospital, nurses and nurse managers saw labelling patients as "drug-seekers" as part of a process to evict them, that is, to remove them from opioids and discharge them from the hospital. Physicians did not always share this view. Even when patients were clearly labelled as "drug-seekers," physicians were sometimes hesitant to discontinue opioids and discharge them from the hospital. They justified this reluctance by noting a principle of their training, that patients should be treated according to the patients' self-rated numerical pain scores. To discharge a patient with a high pain score would contradict this lesson. Despite their reservations about the validity of the numerical rating system for assessing pain, as well as their supplemental use of an intricate system of secondary evidence to verify pain scores, physicians sometimes felt uncomfortable acting on their doubts about patients. This surfaced as a regular source of conflict between physicians and non-physician healthcare workers that erupted frequently at MDR.

In fall 2017, I sat at the table in the MDR conference room and watched as resident Lakshmi presented Ms. Duhaney, a patient with sickle cell disease, to the staff at the MDR meeting. Lakshmi described Ms. Duhaney as a "drug-seeker," referring to her as "one of our frequent customers" and saying to the MDR staff, "I know you guys probably hear about her more than anyone, so I wanted to run some things by you with our care for her. She's an opioid addict. I'm thinking she has major psychological issues." Lakshmi told the MDR team that Ms. Duhaney's own mother had called the hospital to warn them that she was an opioid addict: "She says [Ms. Duhaney will] say she's going to a friends, but then she'll call an ambulance and come to the hospital. It sounds like everyone in her family is pretty sick of dealing with her." Lakshmi also shared that she found Ms. Duhaney to be "pretty scary" because she threatened to kill an attending last year, and "she looks like she wants to hurt you." Lakshmi concluded her presentation by saying, "We just don't really know what to do with her."

Without missing a beat, nurse manager Tom suggested, "Transition her to orals (opioid pills)."

Lakshmi frowned and responded, "It's very hard to do that because she'll say she's in 10 out of 10 pain."

"Well is she? Do you think she's really having a vaso-occulsive crisis?" Tom asked.

Lakshmi replied, "I mean, no, she's up and walking around."

Tom asked, "Then what's the evidence for treating her?"

"Yeah, I don't know," Lakshmi replied before changing the subject.

This incident exemplifies occupational differences in beliefs about whether "drug-seekers" should be removed from IV opioids and evicted from the hospital. Even though she was as certain as one can be that Ms. Duhaney was a "drug-seeker," Lakshmi was hesitant to act on this label. In part, she felt paralyzed by best practices guidelines that stated that physicians should treat sickle cell patients with IV opioids if they reported 10 out of 10 pain in the inpatient context. For Lakshmi, following these guidelines was more important than protecting hospital resources and hospital staff from Ms. Duhahey. Thus, for physicians, labelling a patient as a "drug-seeker" was not enough to evict them from the hospital. For Tom and for the nurses working for him, labelling a patient as a "drug-seeker" should mean that they are denied IV opioids. Interestingly, Tom did not suggest denying Ms. Duhaney opioids altogether, but rather switching her to oral opioids, which would mean that she could be discharged from the hospital. Tom's recommendations, therefore, were based on the organizational goals around expediting patient discharge, rather than the view that it would be good for a drug-addicted patient to have less access to drugs.

These kinds of occupational differences in opinion about management of "drug-seekers" could take on the tone of interpersonal animosity. A few weeks after the incident with Ms. Duhaney, I watched at MDR as Jennifer, a nurse manager, argued with David, a resident, about the proper course of treatment for Ms. Morgan, a patient with sickle cell disease. Ms. Morgan was reporting severe pain from a vaso-occlusive crisis, and her physician team, which included David, two other residents, and an attending physician, had been giving her IV opioids for several days.

Even before MDR started, Jennifer was geared up for a confrontation: "I'm going to snap at [David's team]," she told Tess, a social worker. "They still haven't discharged Ms. Morgan. She's still saying she's in 10 out of 10 pain." Tess, looking at Ms. Morgan's medical records on her laptop, informed Jennifer that David and the other physicians had increased Ms. Morgan's dose of IV Dilaudid the night before. Jennifer, shaking her head, replied, "I am telling you, they have got to get her out." She clarified that Ms. Morgan was not a "bad patient," but that she had simply overstayed her welcome in the hospital. "She's in [her room] chillin', playing on her cellphone," she explained, indicating that she believed Ms. Morgan's vaso-occlusive crisis was over even if Ms. Morgan claimed it was not. Yvonne (case manager) added, "Yeah, when we come into check on her it's like we're interrupting her!" Jennifer responded, "Hotel Hudson Hospital."

When David came to MDR, he said about Ms. Morgan, "So, my attending isn't comfortable discharging her while she's still in 10 out of 10 pain." He looked apologetically at Jennifer.

Jennifer took a serious tone. "My nurses are at bedside more often than you guys are, and she's on phone, talking to friends. She's chilling. My question is how long are you guys going to keep her here for? Cause it's time to get her out. Her nurse who was her nurse for last couple days is like, 'Why is she still here?' I understand the attending is pushing you, but you have to give a little push back."

David told Jennifer that he and his team would discharge Ms. Morgan this afternoon.

"Okay, well then it needs to be this afternoon," Jennifer replied curtly. After David left the room, Jennifer shrugged and said she guessed Ms. Morgan would go today.

"But David lies sometimes," said Tess. "He's done this to us before."

To Jennifer, David's deferral to pain management guidelines was not merely a disservice to the purportedly opioid-addicted patient or the hospital as an organization, it was a personal injustice to her and her non-physician colleagues. Jennifer leveraged the on-the-ground knowledge of patient behavior that she and her nursing colleagues possessed as superior to David's guideline-based rules. According to Jennifer, the general internal medicine nurses knew what was *really* going on with Ms. Morgan's pain – that it had improved to the point that she was "chilling" in her room – because they were present on the patient floors and able to see how she acted. Nurses and nurse managers found it frustrating that, despite their superior ability to gather the secondary evidence used to verify self-reported pain scores, their opinions often had little sway in shaping medical decision-making.

Conclusion

In this chapter, I demonstrated the strategies healthcare workers use to assess the legitimacy of pain, given their ambivalence around the validity of self-rated pain scores. In accordance with best practices guidelines, healthcare workers at Hudson Hospital employed numerical scales when assessing pain. However, instead of trusting patient self-reports, they used secondary evidence, including physical embodiment of pain, patient affect, and medical history, to label pain patients as either “legitimate” or “drug-seeking.” These forms of evidence tended to disadvantage patients living with chronic pain, who often expressed pain differently than those unused to pain. Further, the labelling process appeared to disadvantage black patients, for whom healthcare workers more readily connected disparate pieces of information into an “evidentiary gestalt” (Timmermans 2006).

As an organizational process, labelling marks people for particular courses of action (Emerson and Messinger 1977; Heimer and Staffen 1998). Even though healthcare workers from different occupational backgrounds took part in the process of labelling pain patients as “legitimate” or “drug-seekers,” they often disagreed about what should be done with patients once labels were assigned. Nurses and nurse managers advocated for evicting “drug-seekers” from the hospital by removing them from IV opioids and discharging them with oral medications. This belief stemmed from the fact that they typically prioritized the organizational goals of financial solvency and providing care to every patient, as I established in Chapter 1. Physicians sometimes agreed that “drug-seekers” should be evicted, but other times they were hesitant to do so because this practice would violate formal care guidelines. They prioritized organizational goals around “excellence” in patient care, which they saw as care that was evidence-based and that matched best practices guidelines. In Chapter 3, I will explore how the relationship between labels and actions changed because of a sudden, nationwide shortage of IV opioids.

CHAPTER 3: THE IV OPIOID SHORTAGE

Nurse Graciella felt frustrated by what she saw as inconsistency in how her physician colleagues treated pain patients. During her five years of working at Hudson Hospital, she had noticed a great deal of variation in their approaches to prescribing opioids. While some physicians were quick to label patients as “drug-seekers” and discontinue their pain treatment, others allowed patients to continue receiving IV opioids, even when they were displaying behaviors that, to Graciella, clearly invalidated their self-reported pain. In addition to the fact that unpredictable medical decision-making made her job confusing, she felt that it left the hospital vulnerable to manipulative behavior on the part of patients. “These people leave [the inpatient hospital] and come back [to the emergency room], and then they get a different doctor,” she told me. “They finally eventually get what they want.” Even when healthcare teams agreed on a plan, patients could sidestep their decision by re-starting the hospitalization process and trying to get paired with a more permissive physician team. “It [shouldn’t] be the luck of the draw,” complained Graciella.

Rather than leaving pain management decisions to physician discretion or patient wishes, Graciella thought that Hudson Hospital should adopt a *protocolized* approach to pain management. Protocols are guidelines that translate professional standards and medical research into practice recommendations for healthcare staff. Typically, these are rooted in evidence-based medicine, which is considered the “gold standard” of medical practice (Timmermans and Berg 2003). That said, pain medicine often has a weaker evidence base than other kinds of medicine because accurate measurement is important to the validity of research studies, and pain cannot be measured accurately (Carr 2017). Nonetheless, professional guidelines and protocols exist for pain that appear similar to more firmly evidence-based ones (for example, see Dowell, Hagerich, and Chou 2016). Such protocols can serve as shortcuts for clinicians, who, rather than having to consult medical research each time they make a decision, can fall back on simple syntheses of relevant information (Timmermans and Berg 2003). While many protocols are disseminated by leading medical research organizations and professional societies, hospitals can also develop their own protocols. At Hudson Hospital, hospital-specific protocols for a number of medical problems were communicated to staff through the electronic medical record. When healthcare workers entered certain information into this digital system, it triggered alerts to pop up with reminders about the hospital's patient care policies.

At the beginning of my fieldwork in 2017, Hudson Hospital had developed a protocol for prescribing opioids for patients to take at home, but it did not have a protocol for treating acute pain in the inpatient setting, including pain from sickle cell disease. Graciella and many of her colleagues believed that Hudson Hospital should adopt stricter policies in order to prevent pain patients, and especially sickle cell patients, from using hospital resources – including bed space, staff time, and drug supply – inappropriately. "There needs to be a protocol that's set in stone that the providers don't deviate from, so that it doesn't matter how much [the patient is] screaming. This is what we're doing, this is what's gonna happen each and every time," Graciella opined.

In March 2018, Graciella got her wish: Hudson Hospital adopted a strict protocol limiting the prescription of IV opioids to 24-hours for all patients on the general internal medicine units. This change did not come about, however, due to the hospital administration's recognition that such a policy would be ideal, but rather in response to a sudden, nationwide shortage of IV opioids. In fall 2017, hospitals across the United States received an announcement from the Food and Drug Administration (FDA) stating that injectable opioids would be on shortage for the foreseeable future. According to media coverage, the shortage was caused by a combination of factors, including a natural disaster, manufacturing issues, federal policy restrictions, and market forces. To begin with, Hurricane Maria damaged several pharmaceutical plants located in Puerto Rico, causing delays in the production of saline-solutions bags necessary to the preparation of these drugs for patient care (Ladd 2018). At the same time, a Pfizer pharmaceutical plant in McPherson, Kansas that was a major producer of injectable opioids was shut down for repairs following a failed FDA inspection (Hollingsworth and Herndon 2018). Additionally, Drug Enforcement Agency (DEA) efforts to restrict opioid production in response to the opioid epidemic made it difficult for other pharmaceutical companies to make up for Pfizer's deficits (Hollingsworth and Herndon 2018; U.S. Drug Enforcement Administration 2018). Finally, in terms of the opioid market, some sources have also speculated that the low profit-margin on injectable opioids had discouraged drug manufacturers from producing them, further contributing to this crisis (Brusie 2018).

As a result of this shortage of IV opioids, hospitals around the country had been tasked with implementing supply management strategies. At Hudson Hospital, it took several months for the hospital administration to develop a strategy for rationing these drugs effectively. A 24-hour cap on IV opioids was put in place in March 2018 and lasted through the end of my fieldwork in March 2019. This 24-hour protocol is the subject of this chapter. I use it as a window into the relationship between hospital policy, organizational goals, and beliefs about the legitimacy of pain patients. First, I show how Hudson staff blamed the absence of an IV opioid protocol prior to the shortage for many of the perceived abuses of the hospital by pain patients. I then demonstrate that hospital staff embraced the new, 24-hour protocol as a positive change, even while recognizing that it limited their ability to treat their patients in accordance with their interpretation of best practices guidelines. The 24-hour protocol resonated morally with the belief that pain patients were “undeserving” of care. Hospital staff celebrated the advantages they perceived the IV opioid shortage to bring to their work life and to the hospital as an organization. Because of this, they advocated for policies that would make restrictions on opioid prescriptions for sickle cell patients (but not other patients) permanent, even after the shortage was over. I conclude by discussing how permanent changes to the hospital’s policy in IV opioids would reinforce bias against sickle cell patients, by formalizing it into authoritative and seemingly evidence-based hospital policies.

Before the Shortage

Earlier in the dissertation, I described various ways in which Hudson Hospital staff interpreted pain patients as organizational “problems”: Staff believed that such patients obstructed the goal of excellence in patient care because it was challenging to define high-quality care for pain; they saw them as less valuable to the education of residents and medical students; they believed these patients were less in need of hospital-level care than other, needier patients; and they saw these patients as a strain on limited hospital resources (including staff time and emotional energy, space within the hospital, and financial resources). Further, hospital staff believed that a certain number of pain patients were “drug-seekers” who were leveraging “real” underlying conditions to get access to IV opioids for their euphoric effect rather than for their pain-relieving effect. While staff felt this way about pain patients, in general, they especially problematized patients with sickle cell disease, who constituted the largest population of patients seeking opioid therapy on the general internal medicine service.

My subjects blamed Hudson Hospital’s lack of opioid protocol for enabling patients to manipulate the hospital for access to drugs and other resources. From the early 2000s to spring 2018, Hudson Hospital did not have any opioid protocol at all. Rather, physicians had complete discretion when deciding how to treat a patient’s pain in the inpatient setting. A “seemingly unlimited” supply of opioids, as one interviewee described it, and formal care guidelines that encouraged providers to trust their patients’ subjective accounts of their own pain, led to what many staff members now saw as overprescription of opioids. Nurse manager Tom characterized this period as “the Wild West,” implying a level of irresponsible lawlessness. IV Dilaudid (a potent opioid) was used so commonly that Hudson Hospital staff had started referring to it as “Vitamin D.” When I asked pharmacist Sarah about the source of this nickname, she explained, “[Dilaudid] is just something that you give out without thinking about it, you know?” Olivia, a resident in her final year of training, told me that part of the problem with the lack of pain management protocol was “that we [didn’t] have much to guide us in how long [to treat someone with opioids for]. Generally, the belief is it’s per the patient, what the patient says is how long. So, they could be on [a PCA] for very long, for, you know, over a week.” With this statement, she linked the lack of rules to a form of medical practice that created organizational problems like overly long hospitalizations.

Hudson Hospital staff saw the lack of protocol as particularly problematic because they believed it encouraged sickle cell patients to seek hospital care too frequently. Several people, including nurse Graciella, contrasted the lack of limits on inpatient opioid prescriptions at Hudson Hospital with the highly protocolized approach at State University Hospital, the closest academic medical center to Hudson Hospital. Attending Penny claimed that State University had given its physicians a step-by-step approach for treating sickle cell pain crises for over a decade.

In the meantime, she explained, the physicians at Hudson Hospital, when treating sickle cell patients, "would be like, 'Oh, what do you want? We'll give you whatever. If you want Dilaudid or you want morphine, we'll give it to you.'… Patients would come to [Hudson Hospital] because we would give more days and the meds they wanted." In her opinion, this difference in each hospital's approach caused sickle cell patients to choose Hudson Hospital over State University Hospital, even though State University, as a public safety net hospital, got reimbursed more fully for their care via Medicaid and had a team of trained sickle cell specialists (while Hudson Hospital did not).

Penny framed sickle cell patients' choice of Hudson Hospital over other local hospitals loosely in terms of care preferences. Others believed that Hudson Hospital's lack of pain protocol not only encouraged sickle cell patients to *use* the hospital, but also to *abuse* it. Nurse Mark linked Hudson Hospital's comparatively permissive opioid policy to what he saw as an overpopulation of "drug-seeking" patients:

> I know a lot of hospitals do have some sort of protocolized approach, and if you ask me, that's why we had so many sickle cell patients coming to this hospital seemingly having problems with drug-seeking. It's a smaller population of patients. I'm sure there's some connectivity amongst the population.

Similarly, some hospital staff members believed that the lack of protocol had allowed sickle cell patients to receive IV opioids for multiple days, even when they were demonstrably not in pain. Nurse manager Tom connected Hudson Hospital's lack of pain management protocol to the inappropriately long hospitalizations that drained the hospital's resources. Sitting in his office, he gestured to his computer as he explained to me that he had recently looked at the general internal medicine service's data on high-utilizing sickle cell patients. One patient had been in Hudson Hospital 216 days in 2017. "She was hospitalized 216 days out of the year over a span of, like, 12 admissions, and most were two, three, four week-long admissions," he said.

"You can't tell me that we're appropriately treating this person." If the average vaso-occlusive crisis lasted 5-7 days, hospitalizations lasting multiple weeks were absurd, Tom thought.

This view was shared by physicians, as well. In February 2019 (after the opioid shortage had started), I was with Pedro, a senior resident, in the resident workroom when Vivek, one of the interns on Pedro's team, sought his advice about Ms. Reid, a patient with sickle cell disease. Vivek had just been in Ms. Reid's room, where she refused to take Oxycontin (an oral opioid) and instead requested IV Dilaudid. Vivek asked Pedro if he could give her one more push of Dilaudid. "If it wasn't the shortage, I would be okay giving her more," he explained. Vivek, it seemed, had interpreted Ms. Reid as a "legitimate" patient who was actually experiencing a vaso-occlusive crisis. In response, Pedro smiled and reminisced about the time before the opioid shortage, which he experienced during his first year of residency, but that Vivek, as an intern, had not. "I remember the days before the shortage. We would give Dilaudid every two hours for, like, 10 days. These patients would be walking around the food court clearly not in pain." He advised Vivek to cut Ms. Reid off of IV opioids, stating that even if the medication were not on shortage, it would be the right thing to do.

Prior to the IV opioid shortage, cutting patients off of IV opioids meant making choices on behalf of patients that violated their own wishes. As I described in the previous chapters, patients often got angry when this happened, sometimes claiming that they knew their bodies better than the doctors. With no organizational policies or supply limitations on which to fall back, physicians had to take ownership of their decisions when communicating them to patients. These conversations often led to feelings of guilt and stress among the physicians, even when they worked to frame their choices in terms of the health and wellbeing of their patients. For instance, when resident Anuj told Ms. Yancey, the patient reporting pain from pulmonary emboli (who I also described in Chapters 1 and 2), that he and his fellow physicians were not going to give her IV Demerol (a strong opioid that she specifically requested), he explained that this choice was related to her history of drug addiction. IV opioids, he told Ms. Yancey, could be dangerous to her. Nonetheless, Anuj walked away from this encounter emotionally shaken and drained by Ms. Yancey's frustration with him. The next day, he complained on morning rounds about having to go all the way to her room, which was located in a building far from the rest of his team's patients. Josephine, his attending, asked, "I don't get it, what does she do to you?" Anuj replied, "She just, like, yells at you and makes you feel terrible." Natalie, Anuj's senior resident, agreed: "Yeah, she makes you feel like you're a horrible person. She's like, 'Why aren't you doing anything for me?' She makes you feel bad about not treating her pain. You know, she's just manipulative."

The fact that physicians had total discretion over decisions about pain management led to a great deal of variation in practice styles before the opioid shortage. My subjects also identified this as something that left the hospital vulnerable to abuse by patients, who could reasonably leave the inpatient unit, come back to the emergency room, and hope to be paired with a different, more permissive physician team, as Graciella described at the beginning of this chapter. The staff at Hudson Hospital did not only blame patients for misusing – and sometimes abusing – hospital resources, but they also blamed the hospital's insufficiently strict policies for allowing such abuse to be a possibility in the first place.

The Opioid Shortage

When the IV opioid shortage began in fall 2017, the pharmacists, who were the stewards of the hospital's drug supply, attempted to ration the opioid supply by educating physicians about the shortage and encouraging them to reduce their use of IV opioids. They gave lectures across the hospital on the importance of being frugal with these drugs. IV opioid use went down temporarily but then back up again. Pharmacist Sarah, who was on the hospital's committee for managing drug shortages, felt that Hudson's residents were too inundated with emails and other information to fully engage with her team's warnings about the drug shortage. Concerned that the hospital would run out of opioids, the drug supply committee convened in early spring 2018 to develop a stricter policy on inpatient opioid prescriptions. "We just had to follow some guidance that's a little more structured from the top-down versus everyone individually knowing about [the IV opioid shortage]," explained Sarah. The new policy, effective immediately, restricted physicians' ability to prescribe IV opioids to a period of 24 hours for any pain patient on the general internal medicine service. After 24 hours, physicians would have to come up with alternative methods for treating pain.

Although the 24-hour policy affected many patients, it represented a particularly radical shift in the medical treatment of patients with sickle cell disease. These patients could no longer stay in the hospital for weeks at a time, being treated with PCAs of Dilaudid until their pain subsided. Instead, patients could get up to three pushes of IV opioids in the Emergency Department (ED), 24 hours of an opioid PCA once they were admitted to the inpatient unit, and then they were to be transitioned to oral medications (which are generally less potent and slower-acting than IV medications). This was supposed to be standard across all pain patients on the general internal medicine units. Insurance companies typically only cover inpatient hospital stays if the hospital is doing something to the patient beyond what can be done at home, like administering IV medications. Once patients were transitioned to oral medications, many patients lost their "inpatient indication," meaning that their insurance companies would no longer cover the costs of hospitalization. Sickle cell patients might be permitted to stay at Hudson Hospital one or two additional days after they lost the PCA, while the doctors titrated their oral medications, but after that, they were discharged.

The IV opioid shortage did not affect only Hudson Hospital, but rather had major impacts on daily operations and patient care practices in almost every hospital across the United States (American Society of Health-Systems Pharmacists 2018). In the media, the IV opioid shortage has been covered as a public health crisis. For example, news stories state that IV medications are essential to healthcare in hospitals because they are potent, fast-acting, and reliable, and without them, patients experience unnecessary suffering (Bruera 2018). They also claim that shortages of injectable opioids also expose patients to risk because there is more room for error stemming from the fact that physicians and pharmacists are working with alternative painkillers with which they are less familiar (Bartolone 2018; Hollingsworth and Herndon 2018). The opioid shortage has also been found to increase workloads for hospital staff, who are often already spread thin (Hoff, Sutcliffe, and Young 2016), because more time is needed to respond to unhappy patients and to determine and deliver alternative pain treatments when familiar drugs are not available (Bartolone 2018; Bruera 2018).

At Hudson Hospital, however, the IV opioid shortage was not interpreted as a crisis. Rather, healthcare workers embraced it as an unexpected positive. The 24-hour protocol resonated morally with the belief that pain patients were “undeserving” of care. Hospital staff found that the IV opioid shortage brought benefits to their work life and to the hospital as an organization, even while recognizing its downsides for patients.

Effects on Patients

A small minority of the people I interviewed conceptualized the IV opioid shortage as something that had the potential to benefit pain patients, promoting the organizational goal of excellence in patient care. This point of view was primarily stated by the hospital's pharmacists, who saw themselves as "pharmaceutical stewards" and were especially aware of the dangers of opioids to patient and public health. They believed that the opioid shortage benefitted patients because it forced Hudson Hospital's physicians to learn about less dangerous pain management options, including non-opioid ones. They hoped that this would impact how these physicians practiced medicine in the long-term, reducing the exposure of patients to potentially addictive and lethal pain medications. I will discuss this in more detail in the section titled "After the Shortage."

Physicians also imagined that the IV opioid shortage could benefit patients. Attending Penny, for example, thought that the shortage was something that could reduce bias and promote equality. In Penny's opinion, the pre-shortage system of allowing hundreds of physicians to make subjective judgement calls about pain management was both chaotic and inconsistent. This challenged the organizational goal of excellence in patient care. Lack of uniformity stood in contrast to the ideals of the medical profession, which prioritize uniformity and standardization of care (Starr 1982; Timmermans and Berg 2003). Patients *should* receive the same treatment under the care of any physician but were instead receiving different courses of pain treatment when under the care of different physicians at Hudson Hospital. Penny was particularly concerned that unchecked physician discretion around pain management led to class- and race-based inequalities. She believed that the 24-hour protocol imposed a standard that could reduce this.

> I think the benefits [to the opioid shortage] are [that] you know what you're going to get when you come to Hudson Hospital. It's what everybody gets. We're not treating people differently. It's not like, "Oh, I like you. You're a VIP, and you can have a PCA as long as you want. And you're a poor patient from [a low-SES majority black neighborhood], and I can limit [the PCA] if I want to because I think you're [drug]-seeking." Do you know what I mean? Everybody gets the same [under the 24-hour protocol]. I think that's better.

Penny's belief that the shortage promoted equality was largely speculative. As an attending physician, she spent only four weeks per year supervising residents on the general internal medicine units. She worked in an outpatient clinic during the rest of the year, where she saw very few patients with chronic pain conditions and did not prescribe them IV opioids.

My observations called into question the ability of the opioid shortage to promote equality. While the 24-hour protocol was supposed to impose a standard limit across all patients on the general internal medicine service, some physician teams found ways to circumvent this rule in order to obtain more IV opioids for certain patients. To accomplish this, they could enter an order for a new PCA in the evening or overnight, after the general internal medicine pharmacists – who were in charge of reviewing and approving prescriptions – had gone home for the day. Only one pharmacist stayed at the hospital overnight, covering all inpatient units. This person did not have time to review medication orders as closely and sometimes failed to notice when residents extended PCAs beyond 24 hours. When residents ordered opioids at night, the order often got approved by the pharmacist. Once the nurses hooked the PCA up to a patient, it could not be used by any other patient, so taking it away would do nothing to conserve the hospital's opioid supply. The patient was usually allowed to keep the PCA until it ran out.

One resident team I saw circumventing the 24-hour protocol in this way did so for a white patient, Mr. O'Connor, a man in his late 20s with severe pancreatitis who I described in Chapter 2. When I asked Mr. O'Connor's physicians why they were not abiding by the 24-hour protocol, Anuj, who was the resident in charge of his care, explained, “Usually the pharmacy would block it, but this is somewhat of an exceptional case.” The residents were able get Mr. O’Connor a PCA for five days. I never saw similar exceptions being made for black patients. While one case is not enough to prove a pattern of racial bias in how strictly physicians adhered to the 24-hour rule, it does cast some doubt on Penny’s belief that the new protocol generated greater uniformity, and therefore equality, in how patients were allocated these medications.

Although some Hudson Hospital staff imagined that the opioid shortage brought about benefits for patients, the majority of my subjects thought that the shortage was bad for patients because it left their pain untreated. Many of the healthcare workers with whom I spoke mentioned new care deficits for patients with sickle cell disease, whose acute pain crises lasted an average of 5-7 days and therefore surpassed the amount of IV medications they were allocated under the 24-hour protocol. Fletcher, a resident, told me, “IV narcotics are the first line [of] therapy for sickle cell crises. It’s not like in 24 hours [the pain] magically goes away. So, I think we’ve been left with an inability to control patient’s pain as much as we used to, before the shortage. It’s unfortunate.” While the pharmacists assured me that sickle cell pain could be treated effectively with oral opioids, most physicians saw them as inadequate, a view based in their clinical experience of trying out different ways of treating pain and gauging patient responses. Their sickle cell patients reported worse pain relief with these medications and thus worse relief under the 24-hour protocol.

In addition to framing the downsides of the shortage in terms of patient suffering, some of the healthcare workers I interviewed framed it in terms of achieving excellence in patient care via adherence to formal, evidence-based standards of care. For example, resident Natalie explained that the 24-hour protocol prevented her and her colleagues from being able to treat sickle cell pain in accordance with guidelines from the National Institutes of Health (NIH). “It just feels awful to not be able to do even guideline-focused care for them,” Natalie told me. “We already fall short in so many realms of care for sickle cell patients. To then have to say, ‘You have to have your pain controlled on oral medication by 24 hours, or, like, by the time you run out of your [PCA] cartridge,’ that’s just insane.” For Natalie, the shortage added to a set of injustices – including less federal research funding – that sickle cell patients already faced. Nurse Manny agreed with Natalie about the discomforts of not being able to provide sickle cell patients with pain care that adhered to formal standards. “It’s been kind of sucky because for these sickle cell patients, [IV pain medications are] the treatment. That’s what you’re supposed to do. You resolve their pain crisis.” These comments suggested that the IV opioid shortage limited healthcare workers’ ability to work toward the organizational goal of excellence in patient care.

Hospital staff also recognized a downside to the IV opioid shortage, in that it required them to transition patients to oral medications that could be taken at home. As I showed in Chapter 1, they largely perceived oral opioids in the outpatient setting as more dangerous to patients (in terms of addiction and overdose) than IV opioids in the inpatient setting. Yet because the IV opioid shortage prevented them from giving IV medications, and because they believed patients should be discharged once they were only on oral medications, the shortage had the potential to expose patients to additional risks.

For example, Ms. Cunningham, a black woman in her twenties with sickle cell disease (who I also described in Chapters 1 and 2), was discharged from Hudson Hospital with 160 18-milligram pills of oral Dilaudid on a Wednesday, but she came back to Hudson’s ED that Saturday still complaining of severe, unmitigated pain as a result of a vaso-occlusive crisis. A different medical team re-admitted her than the one that had discharged her. On morning rounds on Tuesday, attending Trinh, residents Katie and Adam, pharmacist Randy, and two pharmacy students, Melanie and Anne, who were shadowing Randy, stood outside of Ms. Cunningham's room discussing how to manage her pain, given their limited options. After a long conversation about her case, they decided that they did not believe Ms. Cunningham was "drug-seeking." They said that they would have given her more days of IV opioids if it were possible. Since they could not get her another PCA, they were treating her with oral medications, which, according to Trinh, meant that they could discharge her from the hospital.

Trinh commented, "She'll go home today. She's only on oral pain meds. There's nothing special that we're doing for her here." As they suited up to go into her room, they discussed the plans for Ms. Cunningham's outpatient pain management.

Adam reminded everyone that her last team gave her 160 18-milligram oral tabs of Dilaudid. He sounded hesitant about giving her more oral pills, but the others either did not pick up on this or ignored it.

Trinh asked the residents, "How long is the average sickle cell [vaso-occlusive] crisis?"

"Five to seven days," Katie responded.

Trinh announced that, since Ms. Cunningham had been in the hospital already for four days, her crisis should last two or three more days. They would give her 18 tabs of 24-milligram Dilaudid (a higher dose than she was given before) to cover the rest of her crisis at home.

Katie, looking skeptical, asked, "So we're going up to 24 [milligrams of Dilaudid]?"

"I don't *want* to give her a ridiculous amount of narcotics," Trinh replied. "But we don't think she's an addict; she just has a very high pain tolerance."

The physicians entered Ms. Cunningham's room, but Randy, Melanie, and Anne stayed outside. Randy commented to them, "I would be hesitant to send anyone home with 160 tabs of hydromorphone (the generic name for Dilaudid).” Later, in an interview, Randy spoke to me about the discomfort he felt watching those physicians give Ms. Cunningham such a high dosage of the medications.

The healthcare professionals involved in this encounter recognized the dangers of sending patients home with large numbers of oral pills, but saw it nonetheless as a necessity, given the 24-hour cap on IV medications. While Trinh, Katie, and Adam were more conservative in calculating an appropriate outpatient prescription than Ms. Cunningham’s last team, they still contributed an additional 18 pills to the 160 that Ms. Cunningham had already been given that week. If they still had access to IV opioids, they could have continued treating Ms. Cunningham in the hospital for the duration of her vaso-occlusive crisis, instead of sending her home with medications they saw as dangerous to take unsupervised.

Effects on Hospital Staff

When I first asked resident Natalie about the IV opioid shortage, she told me, “Yeah, it sucks for patients. But it’s kind of great for us,” meaning her and her fellow residents. Despite the downsides of the IV opioid shortage for patients, hospital staff overwhelmingly embraced it as something that improved the quality of their work lives, even while acknowledging some of the new challenges brought about by their inability to access the easiest treatment for severe pain. Among these challenges, physicians had to spend more time coming up with and trying out alternative methods of pain management; pharmacists had to spend more time verifying physicians’ prescriptions and communicating with them about supply limitations; and nurses had to spend more time delivering medications to patients and responding to the complaints of patients with undertreated pain. In spite of these hurdles, staff from every occupational group embraced the IV opioid shortage – and the 24-hour protocol – as unexpectedly positive.

Physicians were especially emphatic about the benefits of the shortage to their work lives. In particular, they saw the IV opioid shortage as something that alleviated the emotional burden of navigating "appropriate" pain treatment with patients whom they suspected of some degree of "drug-seeking" behavior. Physicians found these conversations, in which they had to tell patients that they were going to discontinue IV opioids, to be emotionally-trying; they often walked away from them feeling a sense of guilt. Even if physicians believed they were making choices that ultimately represented high-quality patient care and benefitted the patient, in terms of lessening exposure to dangerous medications, the invisibility of pain and lingering imperative to defer to patients' subjective self-reports left physicians with a sliver of doubt, allowing feelings of guilt to creep in. The IV opioid shortage – and the 24-hour protocol – allowed physicians to avoid the morally-dubious territory of making judgement calls about the legitimacy of pain patients altogether. Irene, an attending, explained that the 24-hour protocol gave physicians a "stop point" with opioids that was welcome because it could be hard to know when and whether to stop prescribing them. Resident Olivia confessed,

> to be honest, in some respects [the IV opioid shortage is] actually pretty great. We have a lot of patients who are on narcotics inappropriately or, you know, want narcotics inappropriately… It can be hard when patients are yelling at you that they need Dilaudid when you're like, "Well, you don't." And so it makes life as a resident a little bit easier because they're yelling at you, and instead of you just being like, "You don't need it," and they're like, "Well, how do you know? You're not me!" you can say, "Well, we don't have it."

This statement highlights the sense of burden that came with exercising discretion over prescribing opioids. These residents were happy to eschew discretion and instead practice "cookbook medicine" (Timmermans and Berg 2003) – in which they followed protocolized "recipes" for patient care, rather than making their own choices – when it came to decisions about pain treatment. They welcomed their organization's regulation of their clinical practice if it absolved them of the responsibility to adjudicate their patients' credibility and the reality of their pain.

On top of that, physicians felt that the shortage simplified negotiations with patients. Instead of having to explain to patients that they were choosing to remove their IV pain medications because they did not believe they needed them (something patients could contest), they could reference the nationwide shortage, something that was harder for patients to argue against. George, a resident, told me,

> I think for me [the IV opioid shortage] is a little nice because then I don't have that pressure to give more and more IV pain meds. And then it's like, patients have more of these set expectations that you only get 24 hours, then we switch to oral meds, and then that's, like, our hands are tied in that regard.

Several others agreed with George that patients' expectations around pain medications had changed as a result of the shortage, making them more agreeable to physicians' wishes to discontinue IV opioids.

The shortage, therefore, became a useful bargaining chip in interactions with patients. Attending Trinh explained this to me particularly vividly. While before the shortage physicians had to tell patients that they themselves had decided to cut patients off from these drugs, the shortage allowed them to say, in Trinh's words, "It's not me. It's not the doctor-patient relationship. It's the hospital. It's Puerto Rico. It's the environment. It's the world. It's not me. I'm treating your pain as best I can. This is just all the tools I have." In her experience, this pitch was more compelling to patients than the idea that physicians simply did not believe that they were in severe enough pain or even that pain medications had the potential to be dangerous. Trinh explained, "One [way of explaining the decision to cut off opioids] is confrontational, like, ‘I am against you. I think you’re making a bad decision, and I disagree with you,’ and the other one is like, ‘I agree with you. I just can’t do it.’” Thus, the shortage allowed her to re-establish the idea of common interest with her patients, even in cases where she might ultimately disagree with them. Trinh said that achieving this common ground with patients required throwing the United States government, pharmaceutical companies, and Hurricane Maria “under the bus,” something she had no qualms about doing. “I’m not standing in front of the bus and watching it run me over,” she said, explaining how it felt to her to take on patients’ anger at and disappointment in their physicians for *deciding* not to give them pain medications.

During my fieldwork, I was able to see this use of the opioid shortage as a bargaining chip in action. For example, I was in the ED with residents Katie and Adam while they admitted Ms. Powell, a patient with sickle cell disease who had a long and well-documented history of “drug-seeking” behavior. I also describe some aspects of Ms. Powell’s case in Chapter 2. Before going to the ED, Katie told Adam that they should ignore Ms. Powell’s history as a “drug-seeker” for the time being and instead make their own assessment of her case. When they spoke to Ms. Powell, she claimed that PCA did not work for her and requested pushes of Dilaudid every two hours, instead. Pushes, as I explained in Chapter 2, were widely believed to give a stronger euphoric effect than the PCA and were therefore more closely associated with “drug-seeking” behavior.

Katie and Adam left Ms. Powell’s room unsure of what to do for her. Katie decided to ask Fatima, a third-year resident (more senior than Katie, who was a second-year resident) who was sitting at the ED workstation nearby, for her opinion. She approached Fatima and asked, “For Powell, she wants pushes of Dilaudid every two hours. That’s not safe, right?”

Fatima, without looking away from her computer screen, agreed, “Yeah, it’s not safe. And on top of that, it’s too much for the nurses on the [general internal medicine] floor. The most they can handle is pushes every 4 hours.”

“I know!” replied Katie. “She’s refusing the PCA though.”

“What’s going on with the Dilaudid shortage?” Fatima asked. “I haven’t been on gens (general internal medicine) in a while, but when I was there, there was a Dilaudid shortage.” Katie said that she wasn’t exactly sure, and Fatima told her that she thought it was still going on:

> Just tell [Powell] that you’re actually unable to give Dilaudid that often. Put it in the context of the national shortage – tell her there’s this national shortage, and you’re happy to give her the PCA or Q4 pushes (every four hours), but you aren’t able to do it more often than that.

Fatima, as the more senior resident, taught Katie and Adam that it was appropriate for them to blame the opioid shortage for their choice not to give a patient their requested method of treatment. Even when there were other possible excuses – concerns about drug safety and about the ability of nurses to deliver opioid pushes every two hours – the residents nonetheless found it easier to blame the shortage, even though the shortage was not the actual reason that they could not give this patient pushes of Dilaudid every two hours.

While it was mostly physicians who explained the benefits of the shortage in emotional terms, nurse manager Tom also praised the shortage as a useful bargaining chip in patient interactions. He felt that before the shortage, physicians were too lenient with patients and that the 24-hour protocol had “empowered” them to discontinue medications.

> We can rely on this big thing, this institutional thing that is a behemoth in the eyes of the patient. We’re not going in there saying, “I’m this individual doctor who’s making this individual decision for your individual case.” It’s, “We have institutionally made a decision that all patients are treated under this protocol and there’s no exception to it.” And it’s great in that respect, because it’s given providers the confidence to be a little more firm in how they treat these patients.

In Tom's view, physicians were hesitant to discontinue IV opioids not because it contradicted the imperative to trust patients, but rather because the physicians lacked "confidence." The shortage allowed physicians to overwhelm patients with broad social forces that prevented them from pushing back against their physicians. Rather than framing the benefits of this kind of physician empowerment in terms of the burdensome emotional dynamics between staff and unhappy pain patients, Tom understood the shortage as beneficial to the hospital as an organization.

Effects of Financial Solvency and Ability to Provide Care for All

Largely, hospital staff saw the 24-hour limit on IV opioids as something that helped them advance the organizational goals of financial solvency and providing care for all. This was because they believed that the new protocol decreased patients' length of stay. Nurse manager Tom described the 24-hour protocol as "one of the best things that's ever been done." He and many of the other healthcare workers I interviewed believed that the opioid shortage protected Hudson Hospital from the inappropriate use of resources – including hospital space, staff time, and fiscal resources– by facilitating earlier discharges for these patients. As I described in Chapter 1, pain patients, and especially patients with sickle cell disease, were often scapegoated for hospital overcrowding and financial precarity. This occurred, in part, because staff believed some of these patients used their invisible conditions as a way to obtain opioids for their euphoric effect and other hospital resources. Thus, if the 24-hour protocol helped expedite their discharge, it served as a solution to these organizational problems.

While Tom was among those who complained that Hudson Hospital's overly lax opioid policy had enabled extremely long hospitalizations (e.g., the patient who stayed 216 days in one year), he celebrated the idea that the new 24-hour protocol made such long hospitalizations impossible. When I asked him if it would be possible for a patient to be on a PCA for two weeks while the IV opioid shortage was ongoing, he told me, “[That would be] totally out of the question. I think you would have to have such a gross indication for it. Gosh, I couldn’t even tell you what type of patient that would be.” Tom believed the protocol led to shorter hospitalizations for pain patients. The belief that the 24-hour rule decreased the length of hospitalization for pain patients was widespread. For example, attending Irene reiterated Tom’s point about the IV opioid shortage increasing speed of transition to orals and leading to faster discharge.

> Lengths of stay are shorter now because even if people wanted to get treated longer with IV opioids, they can’t. And so, if they’re getting treated with oral opioids, and their pain is relatively well-controlled, they can go home. And so, they don’t stay in the hospital as long as they used to.

Many others thought that even if pain patients were not forced out of the hospital after being transitioned to orals, most would want to leave, even if they were still in severe pain. Pharmacist Sarah said,

> I do think [the shortage] has decreased length of stay, mostly because I feel like patients aren’t lingering anymore. A lot of time if you’re only here for opioid therapy, and all of your other medical conditions have kind of been wrapped up or addressed, and then you’re like, “Well I could either take oral opioids here or get a prescription and take them at home. Why would I continue to stay here in the hospital?” Whereas if they were getting IV, then they would be like, “Well, I’m still here, and you’re giving me the IV pain meds, and so it makes sense to stay here and get that therapy.” But once you’re on oral, then I mean, what are we doing for you that you couldn’t be doing [for yourself at home]?

According to Sarah, patients preferred to go home rather than to stay in the hospital, which she understood as relatively uncomfortable compared to the home environment. Rather than assuming that patients lingered in the hospital in order to manipulatively obtain resources, her account suggests that patients lingered because being treated with IV opioids made them believe that they were sick enough to need this treatment. This view fell in line with Sarah’s belief that it was the duty of healthcare professionals to guide patients through appropriate opioid use.

On top of decreasing patient length of stay, some of the staff at Hudson Hospital believed that the IV opioid shortage decreased their pain patient load, something that gave them more time to focus on other, needier patients. A few people told me that many of the “frequent fliers,” pain patients who came to the hospital multiple times a year (many of whom were suspected of “drug-seeking” behavior), had stopped coming to the hospital now that they knew they would not be able to get unlimited access to IV opioids. “I think they’ve come here less,” said nurse manager Tom. “I’ve seen less of some of the names I used to always see. Some of those people that have come here 13 times a year – I’ve seen them less.” Attending Trinh had noticed the same thing – specifically, she remarked on a relative decrease in the number of “frequent fliers” with sickle cell disease. This reduction fit with what she saw as the administration’s goals for Hudson Hospital’s sickle cell population. “They just hope that they go away. They go somewhere else. They get cared for at State University, which has a fabulous sickle cell program and tons of research because the state is invested in taking care of those people, because they all have Medicaid.” State University, as a public safety net hospital, was compensated more fully for the care of Medicaid patients, Trinh explained.

Hudson staff members saw the IV opioid shortage as something that advanced the interests of the hospital as an organization because it reduced the burden of uncompensated care Hudson had to offer their patients. At the same time that fewer and shorter pain-related hospitalizations provided financial relief to the hospital, it could also prevent overcrowding that prevented sick patients from being able to access inpatient beds. In other words, the IV opioid shortage allowed hospital staff to prioritize organizational goals around financial solvency and providing care to the neediest patients, by removing some of the pressure to provide care in accordance with patient care guidelines. With the IV opioid supply limited, physicians could not advocate for IV opioids as the ideal way to treat severe pain. Other organizational goals were able to take precedence. Ultimately, I found that this reduced interprofessional conflict. Physicians and non-physician staff no longer argued at daily multi-disciplinary meetings about whether pain patients should be transitioned to oral opioids and discharged because there was no other option but to do this.

After the Shortage

The majority of healthcare professionals at Hudson Hospital embraced the opioid shortage as a patient care positive, so much so that they planned to recreate conditions of resource scarcity after the shortage ended, both informally and formally. Several people spoke of a "cultural change" brought about by the opioid shortage that they believed could reduce the usage of IV opioids on the general internal medicine floors, even if the 24-hour cap on PCAs was lifted. Attending Trinh told me,

> I think there's been permanent changes. There's mental set points. We used to use continuous (constant delivery of small amounts of opioids) on our PCAs, and now people don't use continuous at all. They don't even know you can do that. My [resident] team is like, "Really? You can do that?: and I was like, "Yeah."

Trinh had seen that her residents' awareness of more extreme IV opioid therapies had diminished, and she took this as a sign that their pain management practices would be reined in, compared to those of previous generations of doctors.

Similarly, pharmacist Sarah believed that physicians had benefitted from the shortage by being forcibly exposed to "multi-modal pain care," meaning more creative and overlapping treatments beyond the simplest solution of pumping patients full of IV opioids. "I think now hopefully a lot of them are more comfortable using other options, whereas before they may have just, like, by default kind of gone to, 'Oh, for pain we'll do Dilaudid, Vitamin D.'" Thus, in the views of both Trinh and Sarah, the shortage had shaped the pool of knowledge about pain management to which residents had access, restricting it and expanding it in key ways.

Residents, who were typically the ones dealing with pain management decision-making on an hour-to-hour basis, had a different view on this. They were still aware that PCAs of IV Dilaudid were typically the easiest and fastest way to treat pain, but the shortage had given them new, effective language for denying patients these medications when they felt patients were asking for them inappropriately. As Tom said in the previous section, they felt “empowered” by their ability to blame large, structural forces for their subjective assessment that someone was not deserving of IV opioids. When I asked resident Shreya what she thought would happen after the IV opioid shortage ended, she expressed reluctance to let go of it as a bargaining chip with patients. She shared,

> I guess I feel like I may still say [IV opioids are] on shortage… I’ll probably just practice the same way. Because I feel like if [IV opioids are] indicated and they need it, I haven’t let the shortage keep me from giving them the IV pain medication… Usually [when I don’t give opioids it’s] because I don’t want to give it, anyway, or I don’t feel like it’s indicated anyway, and I’m just reinforcing it with [the shortage]. So, I don’t think that it’d actually change.

According to this account, the cultural change was in how residents justified denying patients opioids rather than how they believed “real” pain should be treated. Shreya and other residents planned to recreate shortage conditions, informally, by misinforming their patients about the opioid supply in order to continue to absolve themselves of responsibility for these decisions.

In addition to these informal efforts to continue to limit IV opioids, efforts were under way to *formally* recreate conditions of resource scarcity. Many of the more senior members of Hudson Hospital’s staff were advocating to make the 24-hour opioid cap a permanent hospital policy. Nurse manager Tom, who praised the organizational benefits brought about by the IV opioid shortage, told me,

> I was at a meeting a while back and we were talking about the Dilaudid shortage, and I was very outspoken about the positives of the shortage. I talked about how the [24-hour] protocol has been the biggest positive and that whenever the shortage ended, we needed to keep the protocol, and there were a lot of head nods and, yes, people were in agreement.

Given the widespread agreement about the benefits of the 24-hour protocol among key organizational stakeholders, Tom believed that this cap on opioids was likely to become a permanent part of Hudson Hospital's opioid policy, at least on the general internal medicine service. Even after the shortage ended, he believed the hospital would recreate shortage conditions because of how thoroughly the limit on IV opioids solved the problems associated with pain patients.

Attending Penny believed that this shift had already taken place. When I asked her in March 2019 what she thought would happen after the shortage ended, she told me that the IV opioid shortage was already over, but that the 24-hour protocol had been kept in place.

> I don't think there's a shortage [anymore]. I think it's a policy. I think the shortage brought about the policy, do you know what I mean? Instead of getting a PCA for– the doctor decides one day or five days – we couldn't give it, and so we had to have a policy in place. So, then we wrote a policy, and the policy is now 24 hours. So, it's not a shortage anymore.

Penny believed that formal measures to recreate the conditions of the opioid shortage had already been put in place. I should note that Penny's comment that the shortage had already ended did not match what some others had told me. It is possible that, as a more senior attending, Penny had access to information that some of my other subjects did not. That said, I also asked pharmacist Sarah, who was on the hospital's committee for managing drug shortages, whether the shortage was still ongoing in March 2019. She told me that is was and that the expected resolution date was now June 2019. "But this could change or be delayed by the drug manufacturers or suppliers at any point," she clarified. Indeed, the end date of the shortage was a moving target throughout my fieldwork, first set in fall 2018, then winter 2019, then summer 2019. Pharmacist Randy told me around the same time that, while the shortage was not over, it had "eased up." In this sense, there was evidence that even though there was no longer a major shortage of IV opioids, hospital staff were proceeding with pain management as though there were.

Conclusion

Healthcare workers at Hudson Hospital believed that the absence of a pain management protocol rendered the hospital vulnerable to manipulation by "drug-seekers." They saw this liability as something that prevented them from being able to pursue the organizational goals of both providing care to every sick patient and financial solvency. As a result, they embraced a major, nationwide shortage of IV opioids that allowed them to quickly and easily transition patients off of IV opioids (whose administration required them to remain in the hospital) and to oral opioids (with which they could be discharged to home). Even though they recognized that new pain management practices under the opioid shortage did not meet patient care ideals, they nonetheless advocated to make the 24-hour protocol that limited the amount of IV opioids patients could receive a permanent part of hospital policy, even after the shortage was over.

While the 24-hour protocol may have been the best option for managing the opioid supply during the shortage, keeping it in place may disadvantage patients after the shortage has ended. Healthcare workers, and perhaps especially resident physicians (who are still trainees), imbue official protocols and guidelines with a great deal of authority. Guideline-focused care is, to them, the ideal form of patient care. Hospital protocols that limit IV opioid prescriptions will appear to be rooted in evidence-based medicine because this is the case for the majority of medical protocols (Timmermans and Berg 2003). However, the 24-hour cap on IV opioids will not be rooted in evidence-based medicine, but rather in the resonance of this rule with the widespread belief that chronic pain patients – especially those with sickle cell disease – *should* be denied IV opioids in order to get them out of the hospital more quickly. If efforts to advocate for the continuation of the 24-hour IV opioid policy after the end of the shortage succeed (or if they have already succeeded, as is indicated by Penny), biases against sickle cell patients will become a matter of official hospital policy. Facets of bureaucratic structures such as organizational policies can often seem authoritative, immutable, and objective (Ray 2019), especially in medicine, where they are often informed by evidence-based medicine. This may make it more difficult for physicians and others to resist making decisions that disadvantage sickle cell patients because providing evidence-based care will require circumventing organizational policies and norms.

CONCLUSION

In winter 2018, a patient remained on the general internal medicine service at Hudson Hospital for over three months. Ms. London, a woman in her 20s, was admitted to the hospital from an outpatient clinic in order to determine the cause of her extreme weight loss. At the time, she weighed 60 pounds, down from 80 pounds earlier that year. Ms. London's physicians suspected that she had anorexia, but diagnosing anorexia is challenge because, like pain, there is no simple test that can be conducted to determine whether or not someone has it. Instead, Ms. London's physicians ordered dozens of medical tests to rule out any other explanation of her weight loss. Based on these, they determined that there was nothing physiologically wrong with her that was causing her to lose weight. Instead, they diagnosed her with anorexia nervosa and recommended her for treatment in an inpatient eating disorder clinic. Ms. London's parents, with whom she was living before being admitted to the hospital, adamantly rejected the diagnosis. They denied the possibility that their daughter had an eating disorder and refused to take her to the inpatient clinic to which her physicians had referred her. When Ms. London's physicians insisted on the eating disorder diagnosis – and the necessity of the eating disorder clinic – the family threatened a lawsuit against Hudson Hospital. A months-long battle ensued, in which the Hudson Hospital tried to gain legal control over decision-making for Ms. London so that they could get her into an eating disorder clinic against her parents' wishes. I conducted fieldwork with two different physician teams in charge of Ms. London's care and attended dozens of multi-disciplinary rounds in which her case was discussed. Faced with an uncertain, confusing, and frustrating situation, the healthcare workers handling Ms. London's case were united in their assessment of her condition and in their ideas of what had to be done for her. They worked closely together to present a united front when speaking with Ms. London and her family. Even though it would have been easier and less expensive to allow Ms. London to go home with her parents, her healthcare workers fought hard together to get her the medical care they thought was necessary to save her life.

Around the same time, another patient, Mr. Frazier, remained in the hospital for seventeen days past when his physicians decided that he was medically ready for discharge. A man in his 70s, Mr. Frazier had originally come to Hudson Hospital's emergency room for acute gastrointestinal issues related to a chronic condition. His physicians had recommended him for placement in an acute rehab facility, but in order to finalize his transfer, they needed to get in touch with his private insurance company to verify that they would approve the transfer. But after two weeks of trying to get in touch the insurance company, they could not get through to them. The insurance office was simply not picking up the phone. Mr. Frazier's physicians did not think it would be safe to discharge him to home, but no rehab facility would accept him without prior approval by his insurance company. Walter, Mr. Frazier's attending physician, found this situation particularly frustrating. Mr. Frazier had already been in the hospital for over two weeks when Walter took over as his attending physician. After learning about the insurance issues, Walter accompanied his residents to MDR – in which attendings rarely participated – in order to collaborate with the non-physician clinicians there to get to the bottom of the problem. When talking with them, Walter could not contain his frustration with the insurance company. "This is unacceptable," he exclaimed. "If this were a customer service situation, I would be screaming. And I'm basically ready to scream!" Walter made it very clear that he was angry with the insurance company, and not the non-physician clinician staff. "I feel bad for everyone who's had to deal with this situation," he told Tess, the social worker in charge of Mr. Frazier's placement. The two of them made a plan together, brainstorming people to contact in order to get Mr.

Frazier out of the hospital. Walter thanked Tess for her hard work and offered himself as a resource for her if she needed help "escalating" the issue with the insurance company.

Pain patients were not the only type of patients who could require long hospitalizations. These cases demonstrated to me that many different kinds of patients could remain in the hospital for longer than what was deemed medically necessary by their physicians. Hudson Hospital almost certainly lost money on Ms. London and Mr. Frazier since insurance companies usually reimburse the hospital based on the average length of stay for a patient with a given diagnosis, rather than based on the number of days actually spent in the hospital. And yet, in neither of these cases did healthcare workers argue with one another about which courses of action to take, blame the patients themselves, classify these as inappropriate uses of the hospital, or otherwise express any resentment about the length of stay.

Rather, these cases were evaluated for what was best for the patient, even if it was something that ultimately cost the hospital money and inpatient bed space that might have otherwise been used patients with greater medical need. When it came to Ms. London and Mr. Frazier, there was consensus among the staff that the organizational goal of providing high-quality medical care was the priority, over goals related to financial solvency and treating every patient who walked through the hospital's doors.

This approach differed markedly from typical care for pain patients, whose long hospitalizations were often problematized by hospital staff and were a source of conflict between physicians and other clinicians. This difference suggested to me that it was not just the fact that the hospital lost money on pain patients or that they contributed to overcrowding that made them a source of contention. Rather, it was the complex ways in which pain represented barriers to each of Hudson Hospital's organizations' goals that generated disputes among staff and made them question whether they should follow best practices guidelines for these patients.

Throughout this dissertation, I have shown that medical decision-making is influenced by the organizational context in which it takes place. To date, the sociological literature on medical decision-making has detailed a variety of ways in which macro-level phenomena – such as institutions and culture – and micro-level phenomena – such as interactions between patients and physicians – inform how healthcare workers assess, diagnose, and treat their patients. This research has shed light on myriad social forces at play in medicine, redefining clinical encounters as sites where political and cultural battles play out (as opposed to value-neutral sites for the practice of scientific medicine). However, this literature has generally overlooked the role of meso-level factors – like organizations – in providing social context for identifying and evaluating potential courses of action in patient care. Yet, as I have demonstrated, thinking about hospitals as organizations is essential to understanding how healthcare workers arrive at and enact decisions about their patients. In particular, organizational goals – the ends that organizations pursue with their activities – provide important social context for cognition. Organizational goals inform which categories emerge as viable, how people evaluate situations, and what kinds of behavior are seen as good, appropriate, or normal (Powell and DiMaggio 1991; Heimer and Staffen 1995, 1998; Vaughan 1998). Because of this, understanding hospitals' organizational goals is essential to making sense of the processes by which healthcare workers assess and make decisions about their patients.

An organizational account of medical decision-making is especially pertinent given the large variety of goals faced by contemporary hospitals. Adherence to professional standards represents only one among a variety of different objectives toward which hospitals and their employees must work. Some hospitals, especially academic hospitals that house medical schools and residency programs, also prioritize medical education as one of their central goals. Further, hospitals also answer to healthcare industry watchdog groups, consumer advocacy organizations, and state and federal agencies, which set their own standards for what constitutes excellence in patient care. This responsibility toward outside groups is symptomatic of managed care, a blanket term for the kind of greater external, non-physician oversight of healthcare organizations that has defined U.S. healthcare for the past several decades (Light 2000). Additionally, hospitals struggle to maintain financial solvency. Managed care and federal defunding of Medicaid have increased financial pressure on hospitals, making financial solvency a more challenging goal to achieve. Moreover, hospitals must provide appropriate healthcare to every patient who comes through their Emergency Departments (EDs), regardless of insurance status. Whether or not providing care to all is part of hospitals' missions, federal policies mandate that they do not reject ED patients on the basis of their ability to pay for healthcare. Therefore, having the resources – in terms of staff time and hospital space, among other things – to care for all of these patients is a goal for many hospitals.

While some of these organizational goals push hospitals toward similar ends, others come into conflict with one another. Notably, the goals of providing care for all patients, regardless of insurance status, and remaining financially solvent can, at times, be at odds with one another. Many hospitals lose money on Medicaid patients, uninsured patients, and patients with out-of-network insurance, so the mandate to provide care for all is often a direct challenge to financial solvency. As I show in this dissertation, these goals can also come into conflict with goals around providing high-quality patient care when physicians face pressure to discharge patients from the hospital (which helps save money and mitigate overcrowding) sooner than they think is ideal, given best practices standards.

By conceptualizing hospitals as organizations that balance multiple, overlapping, and competing goals, I came to better understand medical decision-making about pain management at Hudson Hospital. Micro-level features of patient-doctor interactions – like patient race and the physical embodiment of pain – and macro-level factors – like a changing professional culture around the benefits of pain management – certainly played a role in shaping how healthcare workers made assessments of and treatment plans for their pain patients. That said, neither of these factors was sufficient for understanding treatment plans for pain patients well. Rather, it was only once I came to understand Hudson Hospital's organizational goals – providing high-quality patient care, educating residents and medical students, providing healthcare for every patient who walked through the hospital's doors regardless of insurance status, and remaining financially solvent – that I could understand how healthcare workers made sense of their pain patients.

Through this analysis, I discovered a widespread culture leading hospital staff from every occupational background to view pain patients as an organizational "problem." In the eyes of hospital staff, these patients often presented barriers to each of Hudson Hospital's goals, especially those related to excellence in patient care, financial solvency, and providing care for all patients. Ambiguity in evidence-based medicine on pain made it challenging for healthcare workers to define what excellence in patient care should look like for pain patients, thus making these patients frustrating and dissatisfying medical cases at this research-focused, academic hospital. Pain patients on the general internal medicine service were largely on Medicaid, meaning that Hudson Hospital lost money on their care. Further, hospital staff viewed these patients as less in need of hospital-level care than patients with undiagnosed conditions or those who needed more urgent, life-saving treatments. This view was compounded by the fact that hospital staff saw a portion of their pain patients as “drug-seekers” who were abusing Hudson Hospital for access to opioids. As a result, they saw these patients as contributing to conditions of overcrowding that made it challenging for the hospital to provide high-quality care for every patient in need of medical interventions. They focused on pain patients as a source of this problem, even when other patients also contributed to overcrowding.

This view of pain patients as barriers to organizational goals informed the courses of action that hospital staff saw as viable, appropriate, and good for patients. In particular, these conditions gave rise to the idea that opioids could be prescribed in a way that advanced organizational goals around financial solvency and providing care for all. One group of healthcare workers – dominated by non-physician clinicians – advocated for reducing the use of IV opioids to treat severe pain on the general internal medicine service and instead championed the idea of treating pain patients with oral opioids. Because patients could be discharged from the hospital on oral opioids but could not be discharged on IV opioids, this way of treating pain would get these patients out of the hospital faster. Some healthcare workers speculated that it would also prevent them from seeking care at Hudson Hospital in the future, which they believed would benefit the hospital as an organization and its staff in a variety of ways. Another group of healthcare workers – dominated by physicians (who held ultimate power over medical decision-making) – acknowledged the advantages of this strategy but resisted it because it violated contemporary best practices guidelines on pain management. Even though they saw these guidelines as somewhat ambiguous, physicians believed that following them was essential to achieving the goal of providing high-quality patient care. Some physicians believed so strongly in the need to “treat pain as what the patient says it is” that they continued to give their patients IV opioids even when they strongly believed patients to be “drug-seekers.”

Circumstances changed when a sudden, nationwide shortage of IV opioids severely limited access to these drugs for Hudson Hospital, along with hospitals across the United States. This exogenous shock forced healthcare workers at Hudson Hospital to change their pain management practices in ways that contradicted best practices guidelines, including newer guidelines that discouraged sending patients home with more than seven days of opioid pills (Dowell, Haegrich, and Chou 2016). In order to conserve the opioid supply, a strict, 24-hour cap on IV opioids was imposed for patients on the general internal medicine service. After 24 hours, patients had to be transitioned to oral medications, at which point they could be discharged from the hospital. Under this protocol, I saw patients get discharged with very large numbers of pills, far beyond the recommended seven-day cap. However, even though the 24-hour protocol forced clinicians to violate their definition of excellence in patient care, clinicians from every occupational group embraced the 24-hour protocol as a net positive because it allowed them to expedite the discharge of pain patients, enabling them to prioritize organizational goals around financial solvency and providing care for all. At the end of my fieldwork, efforts were under way to make the 24-hour protocol a permanent part of hospital policy, even after the end of the shortage. While physicians may have resisted the push to quickly transition pain patients off of IV medications and onto oral medications before the IV opioid shortage, this external jolt forced them to experiment with the hierarchy of organizational goals in ways that ultimately felt more beneficial to them and their organization. This protocol, kept in place by its resonance with organizational goals, will continue to shape medical decision-making around pain into the future.

These findings have several implications for sociological studies of medical decision-making. First, they show that organizational goals influence which medical treatments healthcare workers see as possible and appropriate for their patients. When it came to treating pain patients, two main courses of action emerged as possibilities: 1) being permissive with IV opioids in the inpatient setting but limiting oral opioids in the outpatient setting or 2) limiting IV opioids in the inpatient setting but being permissive with oral opioids in the outpatient setting. Hospital staff evaluated these possibilities in terms of their ability to advance organizational goals, and occupational differences in what was seen as the best way to treat pain patients stemmed from different views of which goals the hospital should prioritize.

Second, my findings show that organizations shape the kinds of value judgements that their employees make about clients. Pain patients at Hudson Hospital often had their legitimacy called into question. In general, it was difficult to discharge pain patients from the hospital because of the absence of objective information that would allow clinicians to know definitively whether they were really in pain. Applying the labels of "legitimate" patient and "drug-seeker" represented an important step in making the case to remove patients who were seen as organizational problems. Organizational goals played a role in how these labels were assigned. For example, patients with frequent and longer hospitalizations posed especially big organizational problems to Hudson Hospital. They were more likely to be assigned the label of "drug-seeker," a label that for some clinicians justified removing these patients from opioids, even when doing so would violate medical training that encouraged physicians and nurses to trust their patients and treat them based on self-reported pain scores.

Third, I found that organizational goals could inform how evidence based-medicine was interpreted and the extent to which adhering to it was seen as a top priority. While there is a great deal of ambiguity about how severe pain should be treated in the inpatient context, contemporary best practices guidelines emphasize the dangers of sending patients with chronic, noncancer pain home with oral opioids (Dowell, Haegrich, and Chou 2016). Based on this, the healthcare workers in my study largely believed that the inpatient setting was a safer place to treat pain than the outpatient setting. However, treating pain in the inpatient setting resulted in long hospitalizations that challenged organizational goals around financial solvency and providing care to all patients. As a result, the necessity of adhering to best practices guidelines was called into question, and new organizational protocols were written that encouraged staff to directly refute these guidelines. As a whole, this dissertation demonstrates the importance of thinking about clinical encounters as socially situated within organizations whose goals can shape how healthcare workers make decisions and how they interact with their patients.

Future Directions for Hospitals and Healthcare Policy

Hospitals are often explicit about their organizational goals, but they rarely think about how goals compete with one another in ways that are problematic for staff and patients. By tasking members of different occupational groups with the achievement of different organizational goals, hospitals create an environment that lends itself to interprofessional conflict. Indeed, my findings showed that different ideas about what the top priority should be when making decisions about patients fostered negative feelings between clinicians. The residents I studied often dreaded having to go to multidisciplinary rounds; the non-physician clinicians who ran multi-disciplinary rounds sometimes felt that residents were wasting their time and making poor decisions about managing the hospital’s resources. These feelings could undermine the development of the types of mutual trust and respect necessary for collaborating and communicating effectively in patient care. Hospital leaders need to pay more attention to the ways in which the demands they place on their staff generate conflict and perhaps provide clearer guidance for their staff members about how to prioritize goals in various instances.

In the contemporary healthcare system, hospitals usually do not have total autonomy in setting their own organizational goals. Rather, goals emerge through a combination of internal ideas about mission and structure and externally-imposed ideas about duty, cost-cutting, and quality of care. This combination of different forces may explain why goals can contradict one another. In particular, federal healthcare policies simultaneously require that hospitals provide appropriate care for every patient who comes to the Emergency Department (Zibulewsky 2001) and make it so that hospitals are reimbursed by Medicaid at a fraction of the rate of other kinds of insurance (American Hospital Association 2017). These policies contribute to an atmosphere in which hospitals located near poor neighborhoods struggle to achieve financial solvency when providing healthcare to their local communities.

In order to be able to survive financially, Hudson Hospital and other similar hospitals have dealt with this impossible balance by limiting the extent to which they provide primary care to their local communities. For the thousands of people living in Hudson Hospital’s vicinity who are uninsured or on Medicaid, this strategy makes it challenging for them to access the kind of healthcare that would allow them to manage their health proactively and in ways that would prevent them from developing more serious conditions that require hospital-level care. Limiting primary care to patients with high-quality health insurance also means that many low-SES people must rely on the Emergency Department for primary care, something that contributes to overcrowding and makes it more challenging, in turn, for hospitals to provide high-quality care (Hoot and Aronsky 2008). Hudson Hospital and other, similar hospitals could mitigate these problems by welcoming Medicaid patients into their outpatient clinics, allowing them to access lower-cost and less urgent care on a more regular basis. Doing so could also promote continuity of care, meaning that patients are seen by the same providers on subsequent visits, which has been shown to improve healthcare outcomes (Kripalani et al. 2007). Continuity of care may be especially important to pain patients, about whom physicians essentially have to make value judgements when weighing whether or not treatment with opioids is appropriate (Rouse 2009). These patients benefit from having providers who get to know them and who work with them to set specific goals for balancing succeeding in managing pain with meeting life goals. This is often only possible if hospitals see patients in outpatient clinics, as well as in inpatient hospitals.

At many hospitals, these kinds of improvements to patient care require federal healthcare reform – especially universal healthcare policies and policies that improve Medicaid funding. These kinds of policies stand to improve healthcare and equality in myriad ways, many of which are outside the scope of this dissertation. In light of the findings of this dissertation, however, such policies would help to bring clarity and consistency to hospitals' goals, allowing them to focus more centrally on providing high-quality medical care for every patient who needs it, rather than getting distracted by budget-balancing and managing overcrowding. These kinds of policies would also help relieve stigmas associated with patients with Medicaid and other kinds of insurance that do not reimburse hospitals fully. My findings suggest that patients who are viewed as money losses for the hospital may be targeted for early discharge in order to mitigate these losses. Universal healthcare would help prevent inequalities that emerge from this kind of discrimination.

Without these kinds of reforms, hospitals can still make changes that improve the care of pain patients. Hospitals like Hudson, that serve a large number of patients with sickle cell disease, would benefit from employing physicians who are specialists on sickle cell disease. Many hospitals have sickle cell specialist teams. However, one attending at Hudson Hospital confessed that she believed that Hudson did not have sickle cell specialists because they did not want to accept that this group of patients was going to be a steady part of their patient population. This person explained that avoiding specializing in sickle cell was part of a strategy to discourage these patients from seeking care at Hudson. Based on my research, this strategy was not working. Sickle cell patients were not going away. Having a specialist team would contribute to the provision of higher-quality care for these patients, as other research has shown (Rouse 2009). It could also help the hospital as an organization, by reducing the rate and length of hospitalization for these patients.

Finally, findings from this dissertation reveal ways in which oversight by external organizations may actually harm the quality of and equality in patient care in hospitals. Organizations like the Leapfrog Group award hospitals for demonstrating excellence in patient care, but some of the metrics they take into account are less about hospital excellence and more about hospital efficiency. The same is true with insurance companies, which include measurements related to the length of hospitalization when setting their rates for reimbursement. So doing, they provide an incentive for hospitals to expedite discharge, something that can help insurance companies save money. This is true of private insurance companies, as well as federally-funded ones like Medicaid and Medicare. This practice may actually encourage physicians to provide lower-quality care in variety of ways, including for pain management. Feeling pressured to get their pain patients out of the hospital quickly encourages doctors to give them oral opioids to take at home. In light of the opioid epidemic of the 2010s, healthcare workers are more aware of the dangers of sending patients home with take addictive medications that have the potential to be lethal. And yet, current policies and standards encourage healthcare workers to continue this practice. Increasing the pressure to decrease length of patient stay may actually be something that contributed to the opioid epidemic. Continued pressures to improve efficiency in inpatient hospitals may make it difficult to fight opioid overprescription, addiction, and overdose.

APPENDIX A: DATA AND METHODS

This dissertation is based on an ethnography of Hudson Hospital (a pseudonym), an academic medical center located in a major American city, conducted between June 2017 and March 2019. I focused on how healthcare workers on the general internal medicine service made decisions about pain management in order to address two primary research questions: 1) How do healthcare workers make decisions about pain management in the context of uncertainty around pain and about opioids? and 2) How do hospitals' organizational goals shape what courses of action their staff see as appropriate, viable, and safe? In this appendix, I discuss my site selection, access, and methods for data collection and analysis.

Site Selection and Access

This was a grounded theory dissertation. My research questions were developed and refined through iterative inductive and deductive processes (Charmaz 2014). When I started conducting pilot research, I was interested in the organizational context of medical decision-making. I selected Hudson Hospital as a field site because, as an elite academic hospital serving a low-income community, I suspected that many of its organizational goals were in conflict with one another. On the one hand, the fact that this hospital was elite meant that it served – and needed to attract – high-income patients with private insurance who would fully reimburse the hospital for their healthcare. On the other hand, the hospital's location near a low-income, mostly African American urban area meant that it also served a large number of uninsured or poorly-insured patients, for whose care the hospital lost money. I was interested in the economic balancing act that allowed Hudson Hospital to serve both functions. In particular, I wanted to examine how healthcare workers were tasked with carrying out this balancing act and how it affected their relationships with one another.

Gaining access to the inpatient hospital setting for ethnographic research was an enormous challenge. I spent almost a year negotiating with gatekeepers and struggling with the hospital's Institutional Review Board (IRB). The IRB was especially concerned with Health Insurance Portability and Accountability Act of 1996 (HIPAA) laws that protect the security of information about patient health and other identifying information. As a result, my IRB agreement did not allow me to enter patients' rooms. When the healthcare workers I was observing entered patient rooms, I stood outside and waited for them. I often asked them to reconstruct these encounters for me, from their point of view. Any dialogue attributed to a patient in this dissertation is recreated based on what my study participants shared with me after leaving the patient room.

Like many grounded theory projects, my initial findings took my research in a different direction than initially expected (Charmaz 2014). My interest in interprofessional relationships led me to notice that pain management was a frequent point of conflict between members of different professions, especially physicians and nurses. I found it especially puzzling that physicians resisted discontinuing IV opioids in patients whom they suspected were "drug-seekers," even when their non-physician colleagues were urging them to do so. I decided to use the case of pain management as a window into the conflict between different organizational goals as embodied by members of different professions, and I refined my research questions to reflect this shift.

Hudson Hospital proved to be a fortuitous field site for several unanticipated reasons. First, as an academic medical center, Hudson Hospital emphasized the importance of evidence-based medicine and guideline-focused care. This emphasis brought into relief the discomfort healthcare staff felt around pain's invisibility when making decisions about treatment with opioids. It also allowed me to examine the strategies evidence-minded clinicians deployed to manage this uncertainty. Secondly, Hudson Hospital's status as an elite hospital and its location on the border of a large, primarily low-SES and African American urban area meant that it treated demographically diverse patients. Both members of the local, medically underserved community and higher-SES, white patients sought care there. This class and race mix allowed me to analyze biases in how healthcare workers assessed and treated pain.

Data Collection

Participant Observation

Data for this dissertation come primarily from roughly two years of ethnographic fieldwork at Hudson Hospital. Between June 2017 and March 2019, I spent over 1,000 hours conducting participant observation on Hudson Hospital's general internal medicine units. The majority of my time (~700 hours across 121 distinct observations) was spent on the adult general internal medicine service. Internal medicine is a specialty that deals with the non-surgical treatment of internal diseases, broadly defined. At this hospital, general internal medicine patients represented those who did not fit onto one of the specialty internal medicine services, such as oncology or cardiology. Many of the patients on this floor had long-term chronic illnesses and multiple comorbidities.

General internal medicine was of particular interest to me because it provided care for a large number of pain patients, a blanket term I use to describe any patient being treated for a chronic pain condition. The majority of pain patients on the general internal medicine service had sickle cell disease, a genetic blood disorder that causes intermittent crises of acute pain. The next largest group had pancreatitis, a painful inflammation of the pancreas. These two groups were particularly interesting for my study because the existence of their underlying condition was “certain” (i.e., objectively measurable), but the presence of an acute pain flare-up was often not. Clinicians had to take these patients at their word. The fact of the underlying condition lent many of these patients enough legitimacy that they were admitted to the hospital. But on the inpatient floors, the invisibility of their severe pain often led to doubt about whether their pain was real. This doubt often grew if these patients were *only* in the hospital for IV opioid therapy, as opposed to diagnostic testing, medical procedures, and/or monitoring for medical complications. Other pain patients had pulmonary emboli, diverticulitis, osteomyelitis, and a number of other conditions for which they typically received medical interventions beyond pain management.

I divided my time between two primary areas of focus: 1) the full workdays of resident physicians and 2) daily multidisciplinary rounds. Resident physicians are simultaneously learners and practitioners of medicine. They have graduated from medical school and are training in a particular medical specialty (internal medicine, in the case of my subjects) via residency training. I chose to focus on resident physicians because they made the majority of decisions about patient care on a daily basis at this teaching hospital. Residents practice medicine under the supervision of attending physicians, who verify their decisions and educate them about what should be done in certain situations. That said, attending physicians are not physically present on the inpatient units for the majority of the day. At Hudson Hospital, the attending usually spent a few hours with the patients and residents in the morning on morning rounds, which are daily bedside visits to each patient that include a long discussion of each patient’s case in front of the patients’ rooms.

In order to learn about the medical decision-making process, I shadowed residents and attending physicians on daily rounds. I also shadowed residents throughout their workdays as they collaborated with consulting teams and non-physician clinicians, attended lectures and conferences, admitted patients to the general medicine floor, and took care of the bureaucratic aspects of patient care (e.g., writing notes, obtaining medical histories, and scheduling follow-up appointments). One of the benefits of studying residents at an academic hospital was that decision-making was rarely an individual process. Residents discussed patient care decisions with one another, with their attending physicians, with their medical students, and with non-physician clinicians. Residents also presented patient case reports multiple times every day, which allowed me to gather details about a given patient’s background, medical history, social situation, and interactions with physicians. It also allowed me to track whether ideas about what might be best for patients turned into actions. I was therefore able to learn a great deal about how and why physicians made decisions.

Patient care on the general internal medicine service was split between four teams of three residents (two interns and one senior resident who was somewhere in years 2-4 of residency), each led by one attending. I focused on one team at a time, which allowed me to build relationships with these individuals and to follow patient cases from start to completion. I tried to follow residents’ grueling schedule as closely as possible, arriving at the hospital at 7am and leaving in the late afternoon. I stayed at the hospital later on call days when residents admitted patients through the night. I occasionally stayed at the hospital overnight on 30-hour call shifts.

I also attended multidisciplinary rounds (MDR) 66 times. MDR was a daily meeting between physicians and non-physician clinicians from several groups, including nurses, nurse managers, social workers, case managers, and sometimes hospital administrators. It took place every weekday and lasted roughly one hour. At these meetings, physicians and non-physician clinicians communicated about developments in patient cases so that, as patients approached the stage of being medically ready for discharge, everyone could make sure that discharge happened as quickly and smoothly as possible. For example, case managers and social workers might arrange home nursing, placement in a rehab facility, and transportation home. Daily communication with physicians occurred so that they would get alerted about patient needs and be able to anticipate discharge dates in advance so that they could arrange these outpatient resources prior to discharge. Communication was highly structured; teams of residents would take turns presenting each of their patient cases one-by-one, including a short summary of the medical aspects of the case, as well as any "social" needs the patient might have. The non-physician clinicians would then ask residents questions about patient cases, troubleshoot social problems (e.g., what to do if a patient's insurance company was not answering the phone), and generally offer advice and commentary on patient cases. These meetings served as a window into interprofessional collaboration and conflict in medical decision-making. Attending MDR also allowed me to gain a sense of organizational goals, occupational differences in which goals were seen as a priority, and conflicts between goals.

I spent an additional 300 hours on the pediatric general internal medicine service. My research on the pediatric side of the hospital was important for learning about the organizational goals and culture of Hudson Hospital, but ultimately it did not make it into the dissertation, because too few of the patients on this unit were being treated for pain. One pediatrician is quoted in this dissertation: attending physician Orla, mentioned on page 32, whose commentary about the importance of using evidence to justify medical decision-making neatly epitomized an attitude toward evidence-based medicine that was pervasive among physicians throughout the hospital.

In order to clarify and externally validate my observations, I asked questions “on the fly” (Lofland et al. 2006). This gave me the opportunity to understand my subjects’ own interpretation of events as they unfolded. On-the-fly interviews also became an extremely useful tool for understanding conversations around patient care, which often unfolded quickly and involved a lot of medical jargon. My clarifying questions were often essential to developing an understanding what was being said, especially in the beginning of my fieldwork, when I was unused to medical jargon. My on-the-fly questions often served the dual purpose of clarifying information and getting my participants to explain things to me in their own terms.

I recorded my observations via extensive fieldnotes. I almost always carried with me a clipboard, notebook, and pen in order to handwrite “jottings,” preliminary, rough notes (Emerson, Fretz, and Shaw 2011). In the context of the hospital, these items were not conspicuous at all; nearly every healthcare worker I shadowed on patient rounds carried a clipboard with a stack of papers related to their patients. At MDR, I typed up jottings on my laptop computer because most of the non-physician clinicians at these meetings had laptops in front of them. My laptop was less conspicuous at these meetings than a notepad and paper would have been. I made an effort to record verbatim quotes, especially during patient care conversations related to pain management. Any time an individual’s comment has quotes around it in this dissertation, it is a verbatim or near-verbatim quote.

I turned my jottings into fully fleshed out, typed fieldnotes within 24 hours of each observation, adding as much detail as I could remember (Emerson et al. 2011). While many ethnographers write up their fieldnotes after leaving the field, my field site often afforded me the opportunity to write notes while still at my site. As I note elsewhere in this dissertation, the residents at Hudson Hospital spent the majority of their time in the resident workroom, sitting at desktop computers typing up notes about their patients. This work was often done in silence, although residents also used this space to discuss patients, gossip, and share news. Because there was little for me to observe while my resident team was typing notes, I often used this time to flesh out my jottings on my laptop computer. I sat next to them and typed while they were typing. When conversations took place in the workroom, I recorded jottings on my laptop because this was less conspicuous than pulling out my notepad and pen.

My relationships with my research subjects were facilitated by the fact that Hudson Hospital was an academic hospital. Much of the hospital’s staff were themselves involved in research projects. Many of my subjects, especially the residents and medical students, told me that they found it exciting to be part of a research study. Further, because of Hudson’s academic status. there were often other observers present on the hospital floors, including nursing and pharmacy students, residency program applicants, and occasionally other researchers. As a result, my presence was less conspicuous than it otherwise might have been. I found several ways to build relationships with my subjects. I offered to do them favors, such as buying them coffee. On one of the units I studied, I asked the nurse manager if there was anything I could do to help. This person tasked me with checking whether the hand sanitizer dispensers were working every day and to report to the charge nurse if any were empty or broken. At MDR, I spent a period of a few weeks timing the length of resident presentations for the nurse managers in charge of this meeting, as part of an effort to decrease the length of these meetings, which tended to run over if residents were overly loquacious or if they were late. This contribution helped me build rapport with the non-physician clinicians at these meetings.

Although I cannot know for certain, I have little reason to believe that my presence in the field altered the course of conversations that I observed, especially when I observed physicians. In general, physicians were quick to consent to being part of my study and eager to include me in their activities. Residents were especially friendly, some inviting me to join them in social activities outside of the hospital. As a graduate student in my late twenties, I shared a great deal in common with residents, who were generally my age and were also going through graduate education.

When discussing patient care, residents, attendings, and medical students had too many details to keep track of to alter anything in the presence of an ethnographer. When residents were chatting and gossiping in their workroom, they had very frank and sometimes offensive conversations about patients in front of me. In general, I never had the impression that anything was hidden from me. One attending physician asked me to sit out from a discussion of two patient cases on morning rounds, one because the physicians were going to deliver a terminal diagnosis to a very young patient and another because family members were angry at the physicians about their treatment plan Neither of these cases involved pain management.

Non-physician healthcare workers seemed somewhat more skeptical of me and a little less enthusiastic about inviting me into their worlds. The majority of people who declined to be part of my study were non-physician clinicians, although many more people consented to participate than declined. I primarily spent time with non-physician healthcare workers at MDR, and it is possible that my presence at MDR influenced conversations, especially during downtime. Two nurse managers, Jennifer and Tom, took turns running MDR. While Tom seemed very comfortable with me, Jennifer often seemed more suspicious of my presence. She sometimes told me that things she and her colleagues said were off the record. These comments were rarely related to pain management cases. I respected her wishes and did not take fieldnotes on conversations that she said she wanted off the record. I do not believe that these absences of information influenced my findings in any meaningful way, although it is possible that she and her colleagues did not say certain things in my presence that could have influenced my analyses.

Interviews

I supplemented my observations with 30 in-depth interviews with healthcare workers at Hudson Hospital. As per my IRB agreement, I only invited individuals with whom I had conducted participant observation for interviews. I used purposive sampling when selecting interview candidates, choosing subjects in order to obtain a range of different perspectives (Yin 2011). In particular, I focused on learning about the perspectives of individuals from different occupational backgrounds since my observational research suggested that occupational group shaped how individuals thought about pain management strategies and how they prioritized different organizational goals. I treated each interview as an information-rich case that could shed light on different aspects of medical decision-making and organizational processes. My sample included 16 resident physicians, 5 attending physicians, 4 pharmacists, 4 bedside nurses, and 1 nurse manager. The demographic characteristics of this sample are displayed in Table 1 below.

Table 1. Interview Sample Characteristics

Name	Occupation	Gender	Race/Ethnicity
Adam	resident physician	man	Caucasian
Anuj	resident physician	man	Asian American
Brandon	resident physician	man	African American
Britney	nurse	woman	Caucasian
Charles	pharmacist	man	Asian American
Danielle	pharmacist	woman	Caucasian
Elizabeth	resident physician	woman	Caucasian
Fletcher	resident physician	man	Caucasian
George	resident physician	man	Asian American
Graciella	nurse	woman	Latinx
Irene	attending physician	woman	Caucasian
Jonah	resident physician	man	Caucasian
Josephine	attending physician	woman	Caucasian
Katie	resident physician	woman	Asian American
Manny	nurse	man	Latinx
Mark	nurse	man	Caucasian
Myron	resident physician	man	Asian American
Natalie	resident physician	woman	Caucasian
Nick	resident physician	man	Latinx
Nidhi	resident physician	woman	Asian American
Olivia	resident physician	woman	Caucasian
Penny	attending physician	woman	Caucasian
Rachel	resident physician	woman	Caucasian
Randy	pharmacist	man	Caucasian
Rumana	resident physician	woman	Asian American
Sarah	pharmacist	woman	Caucasian
Shreya	resident physician	woman	Asian American
Tom	floor manager	man	Caucasian
Trinh	attending physician	woman	Asian American
Walter	attending physician	man	Caucasian

Interviews took place between March 2018 and July 2019. They lasted between 35 and 148 minutes, with the average interview lasting just over an hour. Most interviews were conducted in a quiet, key-card entry room located off of a lobby on one of the inpatient hospital floors. Based on the interviewees’ requests, five interviews were conducted in either the hospital food court or in a lobby. I followed a semi-structured interview guide when conducting interviews that allowed flexibility in asking follow-up questions (Weiss 1994). This interview guide changed slightly over time as I gained a better understanding of the hospital, its healthcare workers, and the issues coming up around pain management. I also changed the interview guide slightly depending on the profession of the individual I was interviewing. For example, I used interviews with more senior attendings as an opportunity to ask about changes to the hospital's protocols and policies over time. In interviews with senior attendings, pharmacists, and the nurse manager, I asked questions about the inner-workings of the hospital, including how protocols and policies came to be written. Interviews with residents and nurses featured more questions on the details of day-to-day patient care and medical decision-making.

With my interviewees' permission, I recorded all interviews with an audio recording device. I transcribed all interview audio recordings prior to data analysis.

Data Analysis

I analyzed fieldnotes and interview transcripts using MAXQDA2020. I conducted multiple, iterative rounds of qualitative coding, during which themes were generated, built upon, and connected to one another (Emerson et al. 2011). During the first coding cycle, I began with line-by-line open coding of my materials using a priori coding (Saldaña 2012). I then "coded my codes" (Charmaz 2014:127), refining my initial a priori codes into more focused themes. In later coding cycles, I systematically coded all of my fieldnotes and transcripts based on these themes. Throughout the coding process, I wrote memos that allowed me to synthesize analytic themes, compare cases, and generate new ideas (Charmaz 2014; Emerson et al. 2011). New ideas often led to new codes and sub-codes, for which I then systematically recoded all fieldnotes and transcripts.

Quotes presented in this dissertation were chosen either for their representativeness (Dey 1993) or for their ability to concisely capture the complex relationship between organizational goals, beliefs about patients, and pain management. All names used in this dissertation are pseudonyms. One individual informant was split into two characters in order to help maintain that person’s anonymity in the context of some sensitive information.

APPENDIX B: FEATURED SAMPLE CHARACTERISTICS

Table 2. Featured Sample Characteristics

Name	Occupation	Gender	Race/Ethnicity
Adam	resident physician	man	Caucasian
Adina	resident physician	woman	Caucasian
Anne	pharmacy student	woman	Caucasian
Anuj	resident physician	man	Asian American
Ben	medical student	man	African American
Brandon	resident physician	man	African American
Britney	nurse	woman	Caucasian
Carter	medical student	man	Asian American
Damien	resident physician	man	Caucasian
David	resident physician	man	African American
Elijah	resident physician	man	African American
Elizabeth	resident physician	woman	Caucasian
Fatima	resident physician	woman	Asian American
Fletcher	resident physician	man	Caucasian
George	resident physician	man	Asian American
Graciella	nurse	woman	Latinx
Henry	resident physician	man	Caucasian
Irene	attending physician	woman	Caucasian
Jennifer	nurse manager	woman	African American
Jonah	resident physician	man	Caucasian
Josephine	attending physician	woman	Caucasian
Katie	resident physician	woman	Asian American
Kendra	nurse	woman	Caucasian
Lakshmi	resident physician	woman	Asian American
Lee	attending physician	man	Caucasian
Manny	nurse	man	Latinx
Mark	nurse	man	Caucasian
Melanie	pharmacy student	woman	Caucasian
Natalie	resident physician	woman	Caucasian
Nick	resident physician	man	Latinx
Nidhi	resident physician	woman	Asian American
Nolan	medical student	man	African American
Olivia	resident physician	woman	Caucasian
Orla	attending physician	woman	Caucasian
Pedro	resident physician	man	Latinx
Penny	attending physician	woman	Caucasian

Table 2. Featured Sample Characteristics (continued)

Name	Occupation	Gender	Race/Ethnicity
Rachel	resident physician	woman	African American
Randy	pharmacist	man	Caucasian
Rumana	resident physician	woman	Asian American
Sarah	pharmacist	woman	Caucasian
Shreya	resident physician	woman	Asian American
Tom	nurse manager	man	Caucasian
Tess	social worker	woman	Caucasian
Trinh	attending physician	woman	Asian American
Ursula	attending physician	woman	Asian American
Vivek	resident physician	man	Asian American
Walter	attending physician	man	Caucasian
Yvonne	social worker	woman	African American

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