

Research Interest-1 : Medical Malpractice

Doctors' Behavioral Responses Against Unnecessary Accusations

1 What?

Defensive medicine is described as medical practices designed to prevent the malpractice suits. It is called 'defensive' because doctors perform these practices in order to prevent malpractice liability rather than benefit the patient. Economists explain the subject with the concept of optimal care, which means that consumers aim to maximize their well-being subject to the resource constraint. With regard to this view, if the expected cost is higher than expected benefit, the care is excessive and defensive (Sloan & Chepke 2008).

The importance and increasing relevance of defensive medicine practices is evidenced by the extreme cost to physicians from medical malpractice lawsuits. The data from the American Medical Association's Physician Practice Information (PPI) 2007-2008 survey shows that 42.2 percent of physicians faced a medical liability claim over the course of their career, and more than 20 percent of physicians were sued two or more times (Kane 2010). To avoid these costs, 92 percent of physicians practice defensive medicine. Specifically, they order more tests, procedures & medicines than are medically necessary to avoid lawsuits (Jackson Healthcare 2011). A recent study by Mello et al. (2010) showed that the cost of medical malpractice in the U.S. is running around \$55.6 billion in 2008 dollars- \$45.6 billion of which is spent on defensive medicine practices by physicians.

In this paper I am going to focus in State of Florida and I will employ two data sets - Florida Hospital Discharge Data and Discipline and Administrative Actions Data for 2010-2016Q2. My proposal is to model empirically the predictors of defensive medicine. Specifically, my research aims to answer the questions: *After a physician has administrative filed against him:*

- does he increase patient's total charges?
- does he order more diagnostic tests for his patients?
- does he order additional procedures for his patients?
- does he order more days of stay at hospital for his patients?

- does the number of deaths in his patients change?

2 How

In order to answer the research questions, I will estimate the following OLS specifications:

$$\ln(charge)_i = \alpha_0 + \alpha_t + \alpha_d + \beta_0 X_i + \beta_1 aftercitation_{dt} + \varepsilon_i \quad (1)$$

$$lengthofstay_i = \alpha_0 + \alpha_t + \alpha_d + \beta_0 X_i + \beta_1 aftercitation_{dt} + \varepsilon_i \quad (2)$$

$$death_i = \alpha_0 + \alpha_t + \alpha_d + \beta_0 X_i + \beta_1 aftercitation_{dt} + \varepsilon_i \quad (3)$$

$$anyprocedures_i = \alpha_0 + \alpha_t + \alpha_d + \beta_0 X_i + \beta_1 aftercitation_{dt} + \varepsilon_i \quad (4)$$

$$numberofprocedures_i = \alpha_0 + \alpha_t + \alpha_d + \beta_0 X_i + \beta_1 aftercitation_{dt} + \varepsilon_i \quad (5)$$

Where i identifies the ‘patient i ’¹, t indexes time, and d determines doctors. X_i represents patients’ characteristics², α_t is year fixed effect, α_d is doctor fixed effect, α_0 is intercept, and ε_i is the idiosyncratic error term. I cluster the standard errors by physician id numbers. This way, I will expect the precision of my estimates will not artificially inflated by unobservables among physicians (Wooldridge 2010).

3 Why

The findings of this study can assist in understanding how the Medical Board decisions effect a physician’s behavior and whether the medical care is excessive and/or efficient. These results may be interest to policy makers, patients, and health-care providers.

Research Interest-2 : Applied Microeconomics Topics

Effects of Vitamin Intake on Education, Date of first menstrual period on risk attitudes of women, Cost-benefit analysis of flu shots, How the level of relationship between co-authors effect the success of the articles...

¹More specifically, the patient i in a particular encounter.

²Such characteristics include: patients gender (female, male); age (0-130), age squared, ethnicity (Hispanic. non-hispanic, unknown), race (black, white and other, principal payer, patient’s counties)

Research Interest-3 : Contest Theory

Contests with entry fees.

We study n -player contests with entry fees. We characterize a unique symmetric equilibrium for any number of players, n , and any cost, c . This unique symmetric equilibrium might be in mixed strategies. We demonstrate that total equilibrium spending is single-peaked in c . We also show that total equilibrium spending satisfies single-crossing property for any two different number of players. It turns out that, if n is given, the contest designer can choose the optimal c which maximizes her expected payoff; on the other hand, if c is given, she can choose the optimal n which maximizes her expected payoff.

In the future; we are planning to make experiments to test our theory.

References

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