

2-2019

# Effect of Tort Reform on Diagnostic Imaging Rates

Israel Ojalva, BA

*Thomas Jefferson University, israel.ojalvo@jefferson.edu*

Arthur Hong, MD, MPH

*UT Southwestern Medical College*

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### Recommended Citation

Ojalvo, Israel and Hong, Arthur, "Effect of Tort Reform on Diagnostic Imaging Rates" (2019). SKMC JeffMD Scholarly Inquiry, Phase 1, Project 1.

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Israel Ojalvo  
SKMC Class of 2021  
SI HS Abstract  
12/15/2018

### **Effect of Tort Reform on Diagnostic Imaging Rates**

**Introduction:** Defensive medicine, is defined as “order[ing] tests, procedures, or visits, or avoid certain high-risk patients or procedures, primarily (but not solely) because of concern about malpractice liability.” Nearly all physician who fear malpractice litigation have admitted to practicing some degree of defensive medicine. In response, many states have enacted policy reforms to lighten the threat of malpractice on physicians.

**Objective:** The most common defensive medicine behavior is ordering diagnostic imaging tests when it is potentially unwarranted. Many states have enacted non-economic damage caps from 2000-2010. We explored if these laws had an impact on the rates of diagnostic imaging in states that enacted the laws compared to those that did not.

**Methods:** We used a retrospective time series analysis on our data from 2002-2016 to compare experimental states with controls, with threshold matching at  $p < 0.20$  based on age distribution, sex, and race. We then calculated if the diagnostic imaging was inappropriate, as derived from the HEDIS measure for inappropriate low back pain imaging. This yielded North Carolina and Tennessee (354,917 episodes) as the only experimental states and Arkansas as the control (58,100 episodes).

**Results:** The experimental groups saw a 0.7% drop in inappropriate diagnostic imaging compared to 0.33% to the control ( $p < 0.0001$ ).

**Conclusion:** The experimental groups saw a significant reduction in potentially defensive diagnostic imaging compared to the matched control. We hope to adjust our rates period to include more states in the next set of calculations in order to make the results more applicable.