

عنوان مقاله:

Improving Fraud and Abuse Detection in General Physician Claims: A Data Mining Study

محل انتشار:

مجله بین المللی سیاست و مدیریت بهداشت، دوره 5، شماره 3 (سال: 1395)

تعداد صفحات اصل مقاله: 8

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خلاصه مقاله:

**Background** We aimed to identify the indicators of healthcare fraud and abuse in general physicians' drug prescription claims, and to identify a subset of general physicians that were more likely to have committed fraud and abuse. **Methods** We applied data mining approach to a major health insurance organization dataset of private sector general physicians' prescription claims. It involved  $\Delta$  steps: clarifying the nature of the problem and objectives, data preparation, indicator identification and selection, cluster analysis to identify suspect physicians, and discriminant analysis to assess the validity of the clustering approach. **Results** Thirteen indicators were developed in total. Over half of the general physicians (54%) were 'suspects' of conducting abusive behavior. The results also identified 2% of physicians as suspects of fraud. Discriminant analysis suggested that the indicators demonstrated adequate performance in the detection of physicians who were suspect of perpetrating fraud (98%) and abuse (85%) in a new sample of data. **Conclusion** Our data mining approach will help health insurance organizations in low-and middle-income countries (LMICs) in streamlining auditing approaches towards the suspect groups rather than routine auditing of all physicians.

کلمات کلیدی:

Healthcare, Fraud, Abuse, Insurance, Data Mining, General Physician

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