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Researchers develop new method for identifying lung nodules

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Pulmonary nodules are common, but few studies of lung nodule identification and clinical evaluation have been performed in community settings. Researchers from Kaiser Permanente Southern California identified 7,112 patients who had one or more nodules by using existing information within the electronic medical record.

Their study presented in the August 2012 issue of the International Association for the Study of Lung Cancer's (IASLC) Journal of Thoracic Oncology, showed how researchers developed and implemented a new method for identifying lung nodules in community-based settings.

The researchers used a combination of ICD-9 codes, CPT codes and an algorithm for natural language processing (NLP) to classify the nodules. This automated method had a 96 percent sensitivity and 86 percent specificity compared to clinician review.

The authors suggest that the automated process, "could be used to study the incidence and prevalence of lung nodules in large popula¬tions, with the caveat that approximately 13 percent of cases identi¬fied by the automated method would not meet our definition of one or more nodules (e.g., be false-positives)."

Since this study favored sensitivity over specificity, the authors advise that the method "could be used as a sensitive first step to be followed by more specific review of radiology transcripts or actual imaging studies."

As screening programs for lung cancer have proven to be beneficial in specific high-risk populations, this study also provides useful information for the study of screen-detected nodules.

Provided by International Association for the Study of Lung Cancer

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