

## New Study Investigates Trends in Advanced Outpatient Diagnostic Imaging Utilisation



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A recently published US study, co-authored by Kathleen Lang, Huan Huang, David W Lee, Victoria Federico and Joseph Menzin in the wake of concerns that had been raised regarding the growth in advanced diagnostic imaging use, evaluates national trends in outpatient MRI/CT utilisation rates and associated factors over the years 2000 to 2009.

The retrospective analysis includes data on all respondents in the nationally representative U.S. Medical Expenditure Panel Survey (MEPS) and visits involving advanced diagnostic imaging that were identified based on self-reported use of MRI or CT tests at emergency departments, office-based medical providers, and outpatient departments.

The imaging utilisation rate was defined as the number of outpatient visits with MRI/CT per 1,000 person-years, and subsequent results were adjusted statistically to create nationally representative estimates at the person-year level for both each year and the pooled 10-year period. A multivariate logistic regression was estimated to identify predictors of imaging use.

Roughly 320,000 person-years make up the analysis, showing an MRI/CT utilisation rates increase from 64.3 to 109.1 per 1,000 person years from 2000 to 2009. The elderly, females as well as Medicare enrollees registered higher rates of use. Growth in imaging slowed in recent years, and the average annual decline in the imaging growth rate was larger than that for all outpatient services (4.7% vs. 0.9%).

The percentage of respondents with MRI/CT use (6.7% during 2000-2009) showed an slower increase rate in later years and even declined in the ultimate two years of the data used for the study. The average number of MRI/CT visits among imaging users was listed as consistent during the entire period at about 1.5 visits.

Factors such as age, female gender, White race, HMO participation, and all payer types (vs. uninsured) were significant predictors of imaging use. In comparison to 2005, the previous years 2000-2003 recorded a significantly lower likelihood of imaging use, whereas the period 2004-2009 suggested a slow-down in later years.

Overall, the previously registered growth in advanced imaging utilization seems to have slowed in recent years, a finding which could be of potential interest to policy-makers and payers.

Source: [BMC Medical Imaging](#)

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