



## Key reasons why patients 'no-show' for imaging appointments



A new study provides insights as to why patients “no-show” for imaging appointments. Researchers found that modality type and scheduling lead time were most associated with increased rates of no-show visits (NSVs). These findings may be used to guide new interventions, such as patient reminders and flexible scheduling, to improve appointment compliance, according to the study published in *Journal of the American College of Radiology*.

NSVs are missed healthcare opportunities that negatively impact overall patient health and reduce departmental operational efficiency. Delays in diagnosis and treatment can lead to increased morbidity and mortality. NSVs also confer a negative impact on other patients because a different patient could have been imaged during the unutilised time slot. Besides the more obvious lack of revenue generation that is associated with an unused appointment, there is also sunk cost from the utilisation of human resources for scheduling, determining examination protocol, and financial pre-authorisation.

In this study, researchers sought to investigate multiyear, multiservice trends across a four-hospital radiology information system (RIS) to determine the strongest correlations between administrative factors and NSV rates to ultimately improve patient care and operational efficiency. The researchers conducted a retrospective analysis of nearly 2.9 million outpatient examinations in the RIS from 2000 to 2015. No-show visits were identified by the “reason code” entry “NOSHOW” in the RIS. The research team restricted data to radiography, CT, mammography, MRI, ultrasound, and nuclear medicine examinations that included all studied variables. These variables included modality, patient age, appointment time, day of week, and scheduling lead time. Multivariate logistic regression was used to identify factors associated with NSVs.

Out of 2,893,626 patient visits that met the study's inclusion criteria, there were 94,096 no-shows during the 16-year period. Rates of NSVs varied from 3.36% in 2000 to 2.26% in 2015. The effect size for no-shows was strongest for modality and scheduling lead time. Mammography had the highest modality NSV rate of 6.99% (odds ratio [OR] 5.38,  $P < .001$ ) compared with the lowest modality rate of 1.25% in radiography.

The researchers found that scheduling lead time greater than 6 months was associated with more no-show visits than scheduling within 1 week (OR 3.18,  $P < .001$ ). Patients 60 years and older were less likely to miss imaging appointments than patients under 40 (OR 0.70,  $P < .001$ ). Mondays and Saturdays had significantly higher rates of no-show than Sundays (OR 1.52 and 1.51,  $P < .001$ ).

"High rates of NSVs in mammography may be due to its nature as a screening examination and may be further complicated by patient discomfort during the examination, beliefs about the disease or the examination, and

differing society screening guidelines," the study authors explain. "In general, screening examinations have a low rate of disease, and patients often feel that there is little harm in postponement of the examination."

Radiography showed the best compliance rates, the authors note, perhaps because these examinations are usually ordered with no advanced scheduling. As shown in the study, the lead time between appointment scheduling and examination time independently correlates with appointment completions, suggesting that scheduling appointments too far in advance and poor communication may contribute to NSVs.

"Adding automated reminders or planning for short lead time scheduling could potentially alleviate the problem of NSVs by reminding patients about their appointments and giving them the opportunity to cancel their appointments if they deem them no longer necessary," the authors point out.

Source: [Journal of the American College of Radiology](#)

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