

Introduction: Until recently, the volume of diagnostic imaging has grown at a rate greater than other physician services covered by Medicare Part B. As a result, policy makers have targeted diagnostic imaging as one of the main reasons for Medicare's ever increasing expenditures. Self-referral has been cited as the primary driver of imaging growth, despite the acknowledgement by many policy analysts and researchers that several other factors contribute to imaging utilization. While 2008 Medicare claims data show that the rate of growth for diagnostic imaging services overall is now lower than the rate of growth for other physician services, the belief that self-referral generates unnecessary and uncontrollable volumes of imaging persists. Urologists, as specialists that can self-refer imaging services, have often been highlighted in Medicare Payment Advisory Commission (MedPAC) reports and news articles as key contributors to imaging overuse. Such studies often cite the relatively high rates of growth in imaging use by specific specialties as indicative of financial incentives driving imaging use.

However, reporting growth rates without accompanying absolute numbers can be misleading. For example, one should not say that a particular specialty's CT imaging doubled without also indicating whether it doubled from, for instance, 50 to 100, or 500,000 to 1 million. Specific numbers must be reported in reference to relevant baseline comparisons viewed over time, such as the total volume of Medicare Part B imaging and the volume by specialty.

About this Analysis: The American Urological Association (AUA) recently explored the prevailing belief that self-referral drives imaging utilization. We examined the most commonly billed CT, MRI and ultrasound services by urologists paid under Medicare Part B. Data was extracted from the 100 Percent Physician Supplier Summary Procedure Master File from 2003-2009.

Conclusions: Our independent analysis showed that urology's overall imaging use is not growing rapidly and our findings do not support assertions that urology's self-referral of imaging services is driving imaging utilization. There is a steady decline in the growth rate for CT, ultrasound growth has remained flat and there continues to be minimal use of MRI by urology. Additionally, compared to total Part B imaging volume and radiology's imaging volume, urology incurs a relatively small percentage of imaging volume. Using objective Medicare claims data this study challenges the prevailing belief that self-referral drives imaging utilization. It appears to be an overgeneralization that may not apply to all self-referring specialists. The nuances in imaging utilization must be examined at the specialty level and over time in order to fairly evaluate any policies aimed at reducing inappropriate imaging utilization.

Pattern of imaging utilization for common urologic CT procedures from 2003-2009

Between 2003 and 2009, urology's percentage of total imaging volume for the most frequently billed urologic CT procedures grew from 1.5 percent in 2003 to 7.3 percent in 2009. Urology's proportion of total CT use increased, on average, by approximately 1 percent each year. While urology showed an increasing rate of growth in CT utilization from 2003-2005, the growth rate has been declining dramatically since 2005. The rate of growth from 2008 to 2009 slowed to 5.7 percent from a high of 80.4 percent from 2004 to 2005.

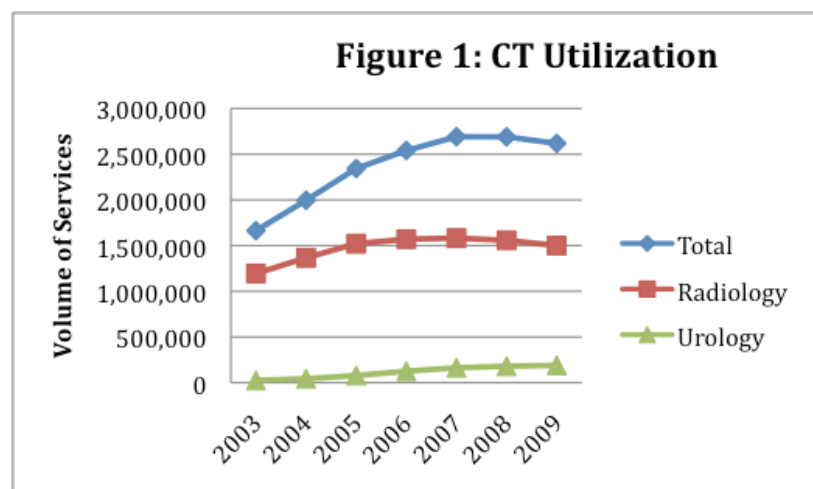
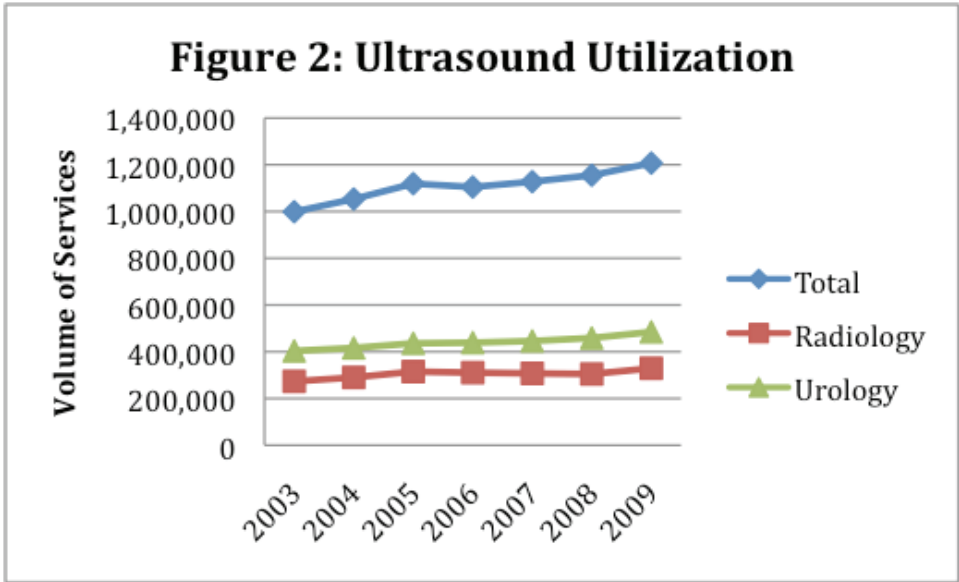


Figure 1 compares urology's CT utilization to radiology's CT utilization and the total Medicare Part B CT utilization from 2003-2009. This graph clearly shows that urology's proportion of CT utilization is relatively diminutive. For example, in 2009 urology accounted for 7.3 percent (190,049 procedures) of the total volume, whereas radiology accounted for 57.3 percent (1,500,218 procedures) of the total volume.

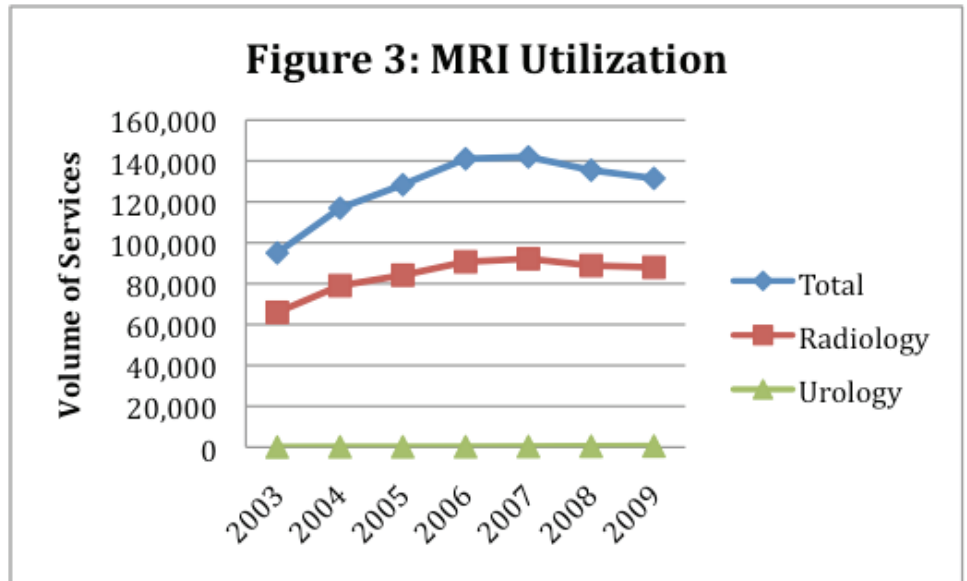
Pattern of imaging utilization for common urologic ultrasound procedures from 2003-2009



As shown in Figure 2, urology's use of ultrasound from 2003 to 2009 showed no significant year-to-year change. Urology consistently accounted for approximately 40 percent of all ultrasound use from 2003 to 2009. Thus, urology's use of a technologically mature imaging modality is highly stable. While urology's ultrasound use is slightly higher than radiology's ultrasound use, radiology is still showing growth in volume in the recent years. Thus, urology's ultrasound use has not impeded radiology's growth.

Pattern of imaging utilization for common urologic MRI procedures from 2003-2009

As expected, urology's MRI use from 2003 to 2009 is miniscule (see Figure 3), accounting for only 0.4 percent of the total MRI use in 2009. In contrast, radiology accounted for 66.9 percent of total MRI use in 2009. Thus, clearly urology does not significantly contribute to MRI utilization.



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