Yet Another Flawed Study of Self-Referral?

The recent article by Bhargavan et al. [1] is a new twist to the study of self-referral by nonradiologist physicians. After acquisition of imaging equipment, these physicians ordered on average 49% more studies than they had ordered before acquisition. This was rationalized as representing overutilization because of financial interest.

Although a relative rate of 1.49 is very much lower than the rates claimed by Hutchinson et al. [2] in a similar context, nevertheless even this increase can be explained by the limitations of the study. Despite the authors' claim that they had addressed limitations cited in a previous article [2], none of these limitations were in fact addressed. Indeed, rather than clarifying the issue, the authors show just how difficult it is to accurately assess self-referral.

First, as in all previous studies of selfreferral, imaging performed in the hospital setting was not included [2]. This seemingly innocent exclusion is critical because it allows many errors of omission. For example, a physician who owns an MRI scanner is much less likely to refer patients to the hospital and emergency department for evaluation. Almost every workup for transient ischemic attack will now be done using the physician's own scanner, and the number of MRI studies ordered will correspondingly—and appropriately—rise, and rise suddenly. This is a good thing, not only for the convenience of the patient but also because it saves an enormous amount of money.

Second, the authors do not address the fact that when a physician acquires a particular kind of imaging equipment, another type will not be used for the same purpose. For example, neck MR angiography may now be ordered instead of carotid ultrasound and vice-versa.

Third, the authors do not account for changes in the ordering patterns of general physicians. A generalist who knows that a specialist owns a scanner is more likely to send patients directly to the specialist rather than simply order the imaging studies [3].

Finally, if financial interest drives the selfreferring physician, why was there no increase in self-referred imaging after the Deficit Reduction Act reduced reimbursement?

We believe that most self-referring physicians behave responsibly when ordering imaging studies. This may have less to do with personal integrity and more to do with the Stark regulations, which remove direct financial incentives.

It is not self-referral but overutilization that should be our concern. Overutilization

may occur either by nonradiologist physicians ordering too many studies or by radiologists recommending unnecessary studies. Those who overutilize can now be flagged by computer and challenged directly.

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WEB—This is a Web exclusive article.

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