



A Review of the MedPAC Recommendation to Reduce Reimbursement for MRI and CT Imaging Services

July 21, 2009

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During July the White House and Congressional leaders announced the major components of their healthcare plans. The technical components of Advanced Diagnostic Imaging Services (ADIS) such as MRI and CT appear to be likely candidates for additional Medicare reimbursement reductions. The White House Medicare Fact Sheet calls for increasing the utilization factor that is a key part of the payment formula for the technical component of ADIS from 50% to 95%, and a bill recently introduced in the House calls for an increase to 75%. At the same time the Centers for Medicare and Medicaid Services (CMS) has proposed increasing the factor to 90% beginning in 2010. These proposals would reduce the technical component reimbursement by approximately 20% to 45% if any of them are enacted into regulation or law.

The basis for these proposals is the MedPAC study titled “Paying Accurately for Imaging Services in Medicare” that was presented in November 2008 at a public meeting of MedPAC and later included in the March 2009 MedPAC Report to Congress. The recommendations in this MedPAC report are based on a study commissioned by MedPAC and performed by the National Opinion Research Center (NORC) during 2006 titled “Survey of Imaging Centers: Use of MRI & CT Equipment in Five Markets.” (The study was actually conducted in six markets.) This survey collected data from only 80 locations. MedPAC reported that increasing the utilization factor to 90% based on this study would result in a savings of \$900 million per year for the Medicare system.

There have been many criticisms of this MedPAC recommendation. For example, the Radiology Business Management Association (RBMA) conducted its own more extensive survey on this topic that was released in June of 2009. The RBMA study was conducted in 46 states, with 261 responses, and found that rural imaging centers operate 46% of the time and non rural centers operate 56% of the time. RBMA also commented that the NORC survey was done before the Deficit Reduction Act of 2005 (DRA) went into effect in 2007 and therefore does not consider the impact of this reduction in reimbursement. Other published comments on the MedPAC recommendation call for improved and more extensive studies, and also ask for fair payment for outpatient imaging based on studies that clearly measure utilization and outcomes.

None of the editorials or studies that we have reviewed to date discussed the details of the NORC report that was the basis for the MedPAC recommendation. In our experience in the evaluation or management of more than 100 imaging centers over the last 12 years, we have rarely seen a center that operates above a 70% efficiency level on a sustained basis. Our experience is very consistent with the results reported by RBMA earlier this year.

Based on the incongruity between our experience and the MedPAC recommendation, we decided to review the NORC study to gain a better understanding of it and why it does not match our experience. We reviewed the survey questions and the basic design of the study in some detail.

The major shortcoming of the study is not in survey design, or analysis of the data. However, the study has two major mistakes that affect the utility of the MedPAC report as the basis for reducing reimbursement for ADIS. The study is composed of 13 questions and it collects information about the hours of operation, the age of the systems in use and the number of systems a private practice or an Independent Diagnostic Testing Facility (IDTF) operates.



The most critical questions were numbers four and six which asked “Approximately how many hours each week would you say that your MRI scanners and CT Scanners are in use?” These questions are the major flaw in this study. Questions eight, nine and ten asked about when the respondent’s imaging center is open for business by the day, week and year. These last three questions provide an understanding of each respondent’s annual hours of operation.

We believe the MedPAC analysts who designed the study were extremely focused on collecting data on the time that ADIS are used in a normal imaging center operation and then comparing that to the hours of operation. By doing so, they may have believed that they could have made a direct calculation of the efficiency of operation for the respondents. This in turn could then provide a direct comparison of actual operation efficiency to the assumption of the payment formula.

It is extremely important to understand that this is not the way imaging centers calculate efficiency. Imaging center operators calculate their efficiency of operation based on the number of studies done versus the number of scheduling slots that they have each day. The study’s major yet very simple disconnect is that it does not include any questions about the volume of tests done at participating imaging centers for either MRI or CT. In fact the survey does not include any questions related to volume of any sort that could validate or improve the precision of the recommendations made by the study. Questions four and six ask how many hours do you operate your equipment each week. Imaging centers do not normally keep records on actual time of operation. They keep records on the actual number of tests that they perform. In other words the answers to these two questions could only be guessed or estimated by the respondents to the survey. In fact it is entirely possible that these two questions could have been completely misconstrued to be testing questions about the hours that each respondent’s center is open for business.

Our analysis is supported by the results section of the NORC report, which states “Responses to this question varied widely. For MRI scanners operated by physician groups the number of hours that each machine was in operation ranged from a low of 8 hours to a high of 98 hours per week. IDTF’s reported using each MRI machine from a low of 30 hours per week to a high of 100 hours per week.” This variation may be due to testing volume variations as the NORC report suggested; however it is much more likely that it is due to the lack of precision of the question and the interpretation required by the respondents in order to provide an answer.

The second important flaw of the study is that it does not ask the job function of each respondent. Therefore we do not know the position of each person who responded to the survey. They could have been the center owner, manager, receptionist, medical director, technician, or another staff member. Knowing who answered the questionnaire would also have been a measure of the quality of the study.



It is clearly important that the cost of healthcare be reduced in the United States for reasons that have been reported in many studies and publications. It is also true that imaging costs have grown faster than any other Medicare healthcare cost from 1999-2006, making it a target for analysis and payment reduction. As we consider ways to reduce healthcare costs while maintaining the quality of the services that we provide in the United States, we should keep in mind the measures that are already in place to control imaging cost. The DRA fee schedule was introduced on January 1, 2007. This measure reduced the technical component for ADIS studies by up to 40%. Based on this change in reimbursement, the GAO reported a 12.7% reduction for imaging services for 2007 when compared with 2006 that resulted in a savings of nearly \$1.8 billion for the Medicare system for that year. The DRA has effectively reduced the growth rate for MRI and CT services for Medicare beneficiaries generally without affecting their access to these services.

Further large reductions like those in the current CMS, and legislative plans, will reduce access to high quality imaging services in the future. ADIS providers who have the newest equipment operate very high fixed cost businesses. The costs of equipment, healthcare IT in the form of their Radiology Information Systems and their Picture Archiving and Communication Systems, as well as their monthly maintenance costs, make the fixed cost component of their cost structure exceed 60% of operating costs. If the utilization factor is increased by regulation or legislation to the levels discussed above, many imaging centers will be forced to close, especially those with the newest and best imaging equipment. The imaging centers that will survive are those with the lowest fixed cost – the facilities with the oldest equipment that have no equipment lease expenses. There will also be no incentive to upgrade to newer equipment based on these lower reimbursement rates.

In addition to the savings currently provided by the DRA, we should remember the requirements of the Medicare Improvements for Patients and Providers Act of 2008 (MIPPA). This law requires CMS to conduct a two year demonstration project beginning in 2010. This project has the potential to demonstrate methods of reducing the cost of Medicare imaging services without impacting the technical component payment level. The project will evaluate the application of imaging standards and point of service and point of order online systems to approve medical scans that have been prescribed based on standards that have been developed by medical societies. Allowing the MIPPA study to go forward, with the implementation of on-line approval without a reduction in reimbursement levels, will have a less drastic impact on imaging centers over the long run. The results of this study has the potential to generate savings that are larger than those projected by the MedPAC recommendation that is based on a study of imaging services that simply asked the wrong questions to a very small group of providers.

Another important consideration is that with all of its growth over the years from 1999 - 2006 imaging has grown to only approximately 5% of our annual Medicare cost. While this is a small percentage, it is still important to develop measures like those contemplated in the MIPPA law to reduce the tendencies towards over-utilization.



It is also important to note that while there have been many studies of the growth in cost for these services, there are virtually no studies that evaluate the potential the savings that have been generated by the introduction and expansion of ADIS over the last 20 years. In the period that is normally studied for the rapid growth in imaging expense from 1999 - 2006, more than 20 significant imaging products have been introduced that clearly improved the utility and quality of ADIS services. Since there is virtually no data on the value of ADIS based on peer reviewed studies of the improvements in care brought about by these services, it is very possible that reducing reimbursement will result in drastic unintended consequences. These changes will most likely reduce access for Medicare beneficiaries and will cause high quality imaging centers with the best and newest equipment to fail.

Before considering additional reductions in reimbursement for MRI and CT services we should allow the MIPPA study to proceed to collect data about the use of medical standards to control imaging testing volume. This effort could provide larger savings in the future for the Medicare System than those projected by the MedPAC study that is the basis for the current proposed reductions. The NORC study discussed above should be redesigned to collect data on testing volumes and scheduling capacity so that future recommendations to adjust reimbursement can be made in a fair and equitable way.

Basing reimbursement reductions on studies that have not collected the data necessary to make a reasonable recommendation is unfair to all of the IDTFs and private practices that have invested millions of dollars in their imaging operations with the intention of providing the very best imaging services for their patients. The proposed reductions for MRI and CT imaging services should be tabled and an appropriately designed study should be conducted to determine if changes in payment beyond those implemented as a part of the DRA for these services should actually be considered.



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