

Medicare Physician Payment Rules for 2011: A Primer for the Neurointerventionalist

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SUMMARY: Physicians generally have been affected by significant changes in the patterns of medical practice evolving over the past several decades. The Patient Protection and Affordable Care Act of 2010, also called ACA for short, impacts physician professional practice dramatically. Physicians are paid in the USA for their personal services. The payment system is highly variable in the private insurance market; however, governmental systems have a formula based payment, mostly based on the Medicare payment system. Physician services are billed under part B. The Neurointerventional practice is typically performed in a hospital setting. The VA system is a frequently cited successful implementation of a government supported health care program. Availability of neurointerventional services at many VA medical centers is limited. Since the inception of the Medicare program in 1965, several methods have been used to determine the amounts paid to physicians for each covered service. Initially, the payment systems compensated physicians on the basis of their charges. In 1975, just over 10 years after the inception of the Medicare program, payments changed so as not to exceed the increase in medical economic index. The involvement of medical economic index failed to curb increases in costs, leading to the determination of a yearly change in fees by legislation from 1984 to 1991. In 1992, the fee schedule essentially replaced the prior payment system that was based on the physician's charges, which also failed to curb the growth in spending. Thus, in 1998, the sustainable growth rate system was introduced. In 2009, multiple unsuccessful attempts were made by Congress to repeal the formula. The mechanism of the sustainable growth rate includes three components that are incorporated into a statutory formula: expenditure targets, growth rate period and annual adjustments of payment rates for physician services.

Physicians in the USA have been affected by significant changes in the pattern(s) of medical practice evolving over the past several decades. These changes include new measures to: 1) curb increasing costs, 2) increase access to patient care, 3) improve quality of healthcare and 4) pay for prescription drugs.¹⁻⁵ Escalating healthcare costs have focused concerns about the financial impact of healthcare and solvency of Medicare. Neurointerventionalists (NIs) practice in a space where there are limited numbers of randomized control studies to support some of our most basic treatments. Changes in Medicare will necessarily impact on the practice of NI.

The historic enactment of affordable healthcare, the Patient Protection and Affordable Care Act of 2010, also called ACA for short, has changed the entire landscape of the practice of medicine in the USA.^{2,6-8} ACA has far reaching goals, including insuring 34 million more Americans.

Medicare paid over US\$60 billion in 2008 and US\$64 billion in 2009 for physician services. On 29 December 2010, Centers for Medicare and Medicaid Services (CMS) issued an emergency update to the 2011 Medicare physician fee schedule, which reduces the conversion factor from December 2010 \$36.8729 to CY 2011 conversion factor of \$33.9764—a 7.9%

reduction.⁹ This essentially is lower than the fee schedule of 2008, 2009 or 2010.⁹⁻¹²

Manchikanti et al¹ recently published an article on the impact that the new Medicare rules will have on interventional pain management. Given the similarities of NI procedures to elements of interventional pain management, this brief communication was undertaken.

Physician Services Payment System

Physician services include office visits, surgical procedures and a broad range of other diagnostic and therapeutic services. Physician services are billed to part B (under physician fee schedule), for which Medicare paid approximately US\$64 billion in 2009, accounting for 13% of total Medicare spending.¹³

All services—surgical and nonsurgical—are classified and reported to CMS according to the Healthcare Common Procedure Coding System, which contains codes for about 7000 distinct services.¹⁴ Currently, approximately 80% of beneficiaries obtain covered services through the original Medicare program, also referred to as fee for service (FFS) Medicare. The remaining 20% of beneficiaries are enrolled in managed care organizations, under Medicare Advantage (MA) organizations. Under the FFS program, beneficiaries obtain services through providers of their choice, and Medicare makes payment for each service rendered or for each episode of care, whereas under the MA program, the entities which insure Medicare beneficiaries assume the risk for providing all covered services in return for a fixed monthly per capita payment. Furthermore, in the FFS program, the deductible is US\$100 per enrollee with a 20% co-pay, whereas in the MA program, the deductibles can range up to US\$6700.¹⁵ Overall, Medicare enrollees in 2010 were approximately 44 million. Of these, in 2010, MA plan enrollment was approximately 12 million.

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Evolution of Physician Payment System

In the USA, physician payment includes the overhead expenses for maintaining an office and providing the services. The payment system is highly variable in the private insurance market; however, governmental systems have a formula based payment, mostly based on the Medicare payment system.

Since the inception of Medicare programs in 1965, several methods have been used to determine the amounts paid to physicians for each covered service. Initially, payment systems compensated physicians on the basis of their charges and allowed physicians to balance their books by billing beneficiaries for the full amount above what Medicare paid for each service. In 1975, just 10 years after the inception of the Medicare program, payments changed so as not to exceed the increase in the medical economic index (MEI).¹⁶⁻¹⁸ Despite the incorporation of the MEI, the policy failed to curb increases in costs, leading to the determination of a yearly change in fees by legislation from 1984 to 1991.¹⁶⁻¹⁸

In 1992, the fee schedule replaced the prior payment system. This system was replaced by the sustainable growth rate (SGR) system in 1998. In 2009, multiple attempts were made by Congress to repeal the formula. The House of Representatives passed such a bill, but replaced it with another formula which is considered the same or more onerous than SGR,¹⁹ which never became law.

Resource Based Relative Value System

Since 1 January 1992, Medicare has paid for physicians' services based on national uniform relative value units (RVUs), based on the relative resources used in furnishing services. The national RVUs are established for physician work, practice expense (PE) and malpractice expense (ME).¹¹⁻¹⁴

Since the initial implementation, RVUs have been refined several times. The first 5 year review of the physician work RVUs was effective in 1997; the second 5 year review was effective in 2002. The third 5 year review of physician work RVUs was effective on 1 January 2007. As part of the 2007 final rule, the CMS implemented a new methodology for determining resource based practice expense relative value units and are transitioning it over a 4 year period.

Sustained Growth Rate Formula

The SGR includes three components that are incorporated into a statutory formula: first, expenditure targets, which are established by applying a growth rate (calculated by a formula) to spending during a base period; second, the growth rate period; and third, the annual adjustments of payment rates for physicians' services, which are designed to bring spending in line with expenditure targets over time.

The relative value of a physician fee schedule is based on three components—physician work, PE and MEIs that are used to determine a value ranking for each service to which it is applied. On average, the work component represents 52.5% of a service's relative value, the PE component represents 43.6% and the ME component represents 3.9%.²⁰

The volume and intensity of services have increased on average by about 4.5% from 1997 to 2009. Since 2002, spending (as measured by the SGR method) has consistently been above the targets established by the formula.^{1,20} The SGR reductions in payment rates for physician services resulted in a

cut of 4.8% in 2002²¹ with additional proposed cuts of 4.4% in 2003.²² In 2003, Congress responded by increasing payments for physician services by 1.6% instead of the projected 4.4% cut.²³ In 2004 and 2005, the Medicare Modernization Act replaced the scheduled rate reduction with an increase of 1.5%. In 2006, the Deficit Reduction Act held 2006 payment rates at their 2005 level, overriding an additional impending 4.4% reduction.²⁴ In 2007, Congress again approved holding the 2008 payments at the 2005 level, thereby avoiding a proposed additional 5.1% reduction.²⁵ From 2008 to 2011, repeated temporary measures were also undertaken.^{11,26-28}

Medicare Advantage Programs

The MA programs provide Medicare beneficiaries with an alternative to the FFS Medicare program. It enables them to choose a private plan to help provide their healthcare. Those private plans can use alternative delivery systems and care management techniques. They also have the flexibility to innovate.

MedPAC's report to Congress stated that 9.9 million Medicare beneficiaries were enrolled in MA plans as of November 2008 and payments to MA plans continue to exceed what Medicare would spend for similar beneficiaries in FFS; MA payments per enrollee are projected to be 114% of comparable FFS spending for 2009. All in all, it appears that the MA program continues to be more costly than the traditional program.

Relative Value Determination of Physician Services

Three types of resources, physician work, PE and ME, are estimated for each service as RVUs.^{27,28} The total RVUs for a service measures its resource used relative to the resource use of all other physician services in the fee schedule. The Medicare payment for a service is the product of its RVUs and conversion factor that translates the RVUs into dollars.

An example of the impact of the current RVU payment system is the widespread belief that evaluation and management services are undervalued, which has held down the income of physicians in primary care relative to other physician specialties.²⁹

The two largest components of the fees, physician work and PEs, comprise about 95% of Medicare physician payments.^{12,27} Even though the data and methods for estimating the work and PE resources for each physician service have been updated and improved, annual changes to the fee schedule still raise comments about the accuracy of the RVUs.²⁷ Consequently, questions persist about the adequacy of the data, the transparency of the processes, the involvement of medical specialty societies, CMS oversight and the standards against which the estimates are valued.²⁷

Medicare Spending on Physician Services

Medicare spending for FFS per beneficiary for physician services has increased annually. In the decade between 1998 and 2008, Medicare spending per FFS beneficiary on physician services increased by more than 75%.³⁰ It has been stated that even though the physician portion of the Medicare spending is declining, growth and spending on physician services is one of several contributions to part B premium increases over this time period.³⁰ Overall, over the first 12 years of the SGR policy

(1997–2008), Medicare spending for physician services—per beneficiary—increased by 90%. Growth in the volume of services provided contributed significantly more to the rapid increase in Medicare spending than payment rate updates. Both factors (updates and volume growth) combined to increase physician expenses. It has been stated that the number of physicians providing services to beneficiaries has kept pace with growth in the beneficiary population from 2001 to 2006, with the number of physicians per 1000 beneficiaries being maintained relatively steady at a little more than 14.³⁰

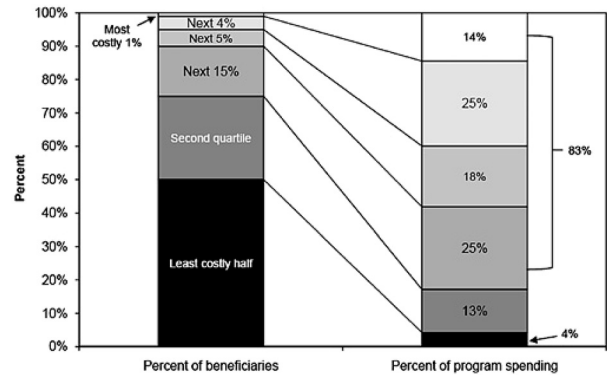
The most recent publication from MedPAC provides data on national healthcare and Medicare spending. Medicare spending among FFS beneficiaries grew strongly in most sectors from 2000 to 2005. The rate of growth slowed in 2006–2008, reflecting a decline in FFS enrollment, as many beneficiaries changed their enrollment to an MA plan.¹³ Physician payments were number 2, just behind hospital inpatient but above postacute care hospital outpatient, inpatient psychiatric hospital and ambulatory surgery center payments. However, Medicare spending per beneficiary in FFS Medicare increased steadily in most sectors from 2000 to 2008.¹³ This trend contrasts with a slowing and aggregate spending in FFS Medicare from 2006 to 2008 caused by a decline in the number of FFS beneficiaries.

The Future of Healthcare in the USA

Medicare spending during this time has also grown as a share of economy from less than 1% in 1965 to about 3% in 2008, with projections suggesting that Medicare spending will make up 4% of GDP by 2019. Further, in 2008, all public spending made up about 47% of the total healthcare spending and private spending made up 53%, which is expected to reverse by 2019, with the public share of 52% and the private share of 48%. However, with enactment of ACA, these projections may be quite off and public spending may increase to as much as 60%–70%.^{1,2,6–8}

Not surprisingly, as most private insurers adapt principles from Medicare, rates of growth in per capita spending for Medicare and private insurance over the long term have been quite similar. Medicare spending has grown nearly 13-fold, from US\$37 billion in 1980 to US\$468 billion in 2008, which includes benefit payments and administrative expenses; however, benefit payments alone increased to US\$491 billion in 2009 with inpatient hospital services by far the largest spending category (27%), followed by managed care (22%), physicians (13%), outpatient prescription drugs provided under part D (12%) and other FFS setting (8%).¹³ Inpatient hospital payments, as well as FFS, actually reduced from 1999 to 2009. Inpatient hospital expenses were 41% in 1999 whereas they were 27% in 2009 due to a shift of multiple services into outpatient settings. However, physician fee schedule constituted 16% of total spending of US\$280 billion in 1999 reduced to 13% in 2009 spending of US\$491 billion. The physician payments constituted 14.2% of total Medicare benefits in 2007.^{13,30} One of the discrepancies may be that managed care payments constituting 22% of the payments enroll less than 20% of beneficiaries. Medicare spending for services is illustrated in Fig 1 with physician fee schedule with 16% of expense in 1999% and 13% in 2009.¹³

Medicare FFS spending is concentrated among a small



Note: FFS (fee-for-service). Excludes beneficiaries with any group health enrollment during the year. Numbers may not sum to 100 percent due to rounding. Spending data reflect revised 2006 Medicare Current Beneficiary Survey Cost and Use file from CMS. As such, spending figures may differ from those in the MedPAC 2009 data book.

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Cost and Use files.

Fig 1. Fee for service (FFS) program spending is highly concentrated in a small group of beneficiaries (2006).¹³

number of beneficiaries, as shown in Fig 1. In 2006, the costliest 5% of beneficiaries accounted for 39% of the annual Medicare FFS spending and the costliest quartile accounted for 83%.¹³ By contrast, the least costly half of beneficiaries accounted for only 4% of FFS spending. Costly beneficiaries tend to include those who have multiple chronic conditions, those using inpatient hospital services, those who are duly eligible for Medicare and Medicaid and those who are in the last year of life.

Physician Payment Schedule for 2011

The final schedule for physician payments was issued on 24 November 2010.¹¹ This was based on a 28% cut of SGR. However, CMS issued emergency update of CY2011 Medicare physician fee schedule data base on 29 December 2010.⁹

Due to multiple revisions and additions of RVUs, the conversion factor associated with the CY2011 final rule has been revised. Legislative changes subsequent to issuance of 2011 final rule have led to further revisions of the values published in the 2011 final rule correction notice, including a change to the conversion factor. Thus an emergency update has been issued by CMS.⁹

Changes to the Fee Schedule in 2010

On 2 March 2010, the Temporary Extension Act of 2010 was signed into law which extended through 31 March 2010, the 0% update to the physician fee schedule that was in effect for claims with dates of services from 1 January 2010 to 28 February 2010. In addition, on 15 April 2010, the Continuing Extension Act of 2010 was signed into law extended through 31 May 2010, the 0% update to the PFS that was in effect for claims with dates of services from 1 January 2010 to 31 March 2010; the provisions were retroactive to 1 April 2010.

On 25 June 2010, the preservation of access to care for Medicare beneficiaries and Pension Relief Act of 2010 was signed into law.³¹ This law required application of a 2.2% update to the physician fee schedule for claims with dates of services from 1 June 2010 to 30 November 2010. As a result of this change, the physician fee schedule conversion factor to US\$36.8729 for services furnished during this time period.

On 30 November 2010, President Obama signed into law the Physician Payment and Therapy Relief Act of 2010.⁹ As a

result of the Physician Payment and Therapy Relief Act of 2010, a new reduced therapy fee schedule amount (20% reduction on the PE component payment) was enacted. On 15 December 2010, President Obama signed into law the Medicare and Medicaid Extenders Act of 2010.⁹

Medicare and Medicaid Extenders Act of 2011

The important part of the physician reimbursement is physician payment update in this regulation passed on 15 December 2010.⁹ This averts the negative update that would otherwise have taken effect on 1 January 2011, in accordance with the final rule. The Medicare and Medicaid Extension Act provides for a 0% update to the physician fee schedule for claims with dates of service 1 January 2011 to 31 December 2011. While the physician fee schedule update will be 0%, other changes to the RVUs, including misvalued code initiative and rescaling of the RVUs to match the revised MEI rates, are budget neutral. To make those changes budget neutral, CMS made an adjustment to the conversion factor. The revised conversion factor to be used for physician payment as of 1 January 2011 is US\$33.9764 with a 7.9% reduction.

Conclusions

The USA is facing widespread challenges to its healthcare system. A historical reform has been passed by Congress and signed into law whose survivability is not quite known yet. However, the ACA effects are already felt at multiple levels. NI is a young evolving specialty with limited level 1 data to support its treatments. With the increasing focus on evidence based medicine and comparative effectiveness research, our specialty will likely be forced to deal with many challenges. With approximately 50% of US based healthcare paid for by the public sector, it is clear that NI specialists benefit from a familiarity with Medicare.

Competing interests

None.

Provenance and peer review

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References

1. Manchikanti L, Singh V, Caraway DL, et al. **Medicare physician payment systems: impact of 2011 schedule on interventional pain management.** *Pain Physician* 2011;14:E5–33
2. Manchikanti L, Caraway DL, Parr AT, et al. **Patient protection and affordable care act of 2010: reforming health care reform for the new decade.** *Pain Physician* 2011;14:35–E67
3. Manchikanti L, Singh V, Boswell MV. **Interventional pain management at crossroads: the perfect storm brewing for a new decade of challenges.** *Pain Physician* 2010;13:E111–40
4. Benyamin RM, Datta S, Falco FJ. **A perfect storm in interventional pain management: regulated, but unbalanced.** *Pain Physician* 2010;13:109–16
5. Manchikanti L, Hirsch JA. **Obama health care for all Americans: practical implications.** *Pain Physician* 2009;12:289–304
6. Public Law No: 111–48: H.R. 3590. Patient Protection and Affordable Care Act. 2010 Mar 23
7. Bredeben P. **Fresh medicine: how to fix reform and build a sustainable health care system.** New York: *Atlantic Monthly Press*, 2010
8. Antos JR. **Reforming health care reform in the 112th congress.** *N Engl J Med* 2011;364:1–3
9. CMS Manual System. Pub 100–20 One-time Notification, Transmittal 828, Change Request 7300. Emergency Update to the CY 2011 Medicare Physician Fee Schedule (MPFS) Database. <http://www3.cms.gov/transmittals/downloads/R828OTN.pdf> (accessed 29 Dec 2010).
10. Department of Health and Human Services, Centers for Medicare & Medicaid Services. 42 CFR Parts 409, 410, 411, 413, 414, 415, 418, 423, 424, 482, 484, and 485. Medicare Program; Revisions to Payment Policies Under the Physician Fee Schedule, and Other Part B Payment Policies for CY 2008; Revisions to the Payment Policies of Ambulance Services Under the Ambulance Fee Schedule for CY 2008; and the Amendment of the E-Prescribing Exemption for Computer Generated Facsimile Transmissions; Final Rule. 2007 Nov 27
11. CMS Manual System. Pub 100–20 One-time Notification, Transmittal 828, Change Request 7300. Emergency Update to the CY 2011 Medicare Physician Fee Schedule (MPFS) Database. 2010 Dec 29
12. Department of Health and Human Services, Centers for Medicare & Medicaid Services. 42 CFR Parts 410, 411, 414, et al. Medicare Program; Payment Policies Under the Physician Fee Schedule and Other Revisions to Part B for CY 2010; Final Rule; Medicare Program; Solicitation of Independent Accrediting Organizations To Participate in the Advanced Diagnostic Imaging Supplier Accreditation Program; Notice. Final Rule. 2009 Nov 25
13. National health care and Medicare spending. In: *A data book: healthcare spending and the Medicare program. MedPAC*, June 2010:3–17. <http://www.medpac.gov/chapters/Jun10DataBookSec1.pdf>.
14. Physician Services Payment System: Payment Basics. *MedPAC*. http://www.medpac.gov/documents/MedPAC_Payment_Basics_10_Physician.pdf (accessed 14 Jan 2011).
15. Health Policy Brief: Medicare Advantage Plans. *Health Affairs*, 2009 Apr 29. http://www.healthaffairs.org/healthpolicybriefs/brief_pdfs/healthpolicybrief_1.pdf (accessed 14 Jan 2011).
16. Statement of Actuarial Opinion from Richard S. Foster, Chief Actuary of the Department of Health and Human Services RE: 2010. Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. Washington, DC: 5 August 2010. <http://www.cms.gov/ReportsTrustFunds/downloads/tr2010.pdf> (accessed 14 Jan 2011).
17. Borger C, Smith S, Truffer C, et al. **Health spending projections through 2015: Changes on the horizon.** *Health Aff (Millwood)* 2006;25:w61–73
18. Medicare Physician Payments, Considerations for Reforming the Sustainable Growth Rate System. Washington, DC: *United States Government Accountability Office*, 2005 Feb 10. GAO-05–326T.
19. Medicare Physician Payment Reform Act of 2009 (to amend title XVIII of the Social Security Act to reform the Medicare SGR payment system for physicians and to reinstitute and update the Pay-As-You-Go requirement of budget neutrality on new tax and mandatory spending legislation, enforced by the threat of annual, automatic sequestration, HR 3961, 111th Cong, 2nd Sess (2009). <http://www.govtrack.us/congress/bill.xpd?bill=h111-3961> (accessed 14 Jan 2011).
20. National Health Policy Forum Session. 2007 Jul 13. <http://www.nhpf.org/index.cfm?fuseaction=Details&key=659> What Can Physician Profiling Do for Medicare? A discussion featuring a slide presentation from A. Bruce Steinwald, Director, Health Policy, Government Accountability Office. http://www.nhpf.org/handouts/Steinwald_slides_07-13-07.pdf (accessed 14 Jan 2011).
21. Department of Health and Human Services, Centers for Medicare & Medicaid Services. 42 CFR Parts 405, 410, 411, 414, and 415. Medicare Program; Revisions to Payment Policies and Five-Year Review of and Adjustments to the Relative Value Units Under the Physician Fee Schedule for Calendar Year 2002; Final Rule. 2001 Nov 1
22. Department of Health and Human Services, Centers for Medicare & Medicaid Services. 42 CFR Parts 410, 414, and 485. Medicare Program; Revisions to Payment Policies Under the Physician Fee Schedule for Calendar Year 2003 and Inclusion of Registered Nurses in the Personnel Provision of the Critical Access Hospital Emergency Services Requirement for Frontier Areas and Remote Locations; Final Rule. 2002 Dec 31
23. The Medicare Prescription Drug, Improvement, and Modernization Act of 2003, P.L. 108–73, (accessed 8 Dec 2003).
24. Deficit Reduction Act (DRA) of 2005, P.L. 109–71, 2005 Dec 21
25. Revised Continuing Appropriations Resolution, HR 116, 110th Cong, 1st Sess. 2007
26. Report to the Congress: Medicare Payment Policy. Washington, DC: Medicare Payment Advisory Commission, 2009
27. Dummit LA. **Medicare physician fees: The data behind the numbers.** *Issue Brief Natl Health Policy Forum* 2010;22:1–16
28. Dummit LA. Relative value units (RVUs). *The Basics Natl Health Policy Forum* 2009. http://www.nhpf.org/library/the-basics/Basics_RVUs_02-12-09.pdf (accessed 12 Feb 2009).
29. Dummit LA. **Primary care physician supply, physician compensation, and Medicare fees: what is the connection?** *Issue Brief Natl Health Policy Forum* 2008;827:1–13
30. **Ambulatory care: Physicians, Hospital outpatient department (HOPD) services, Ambulatory surgical centers, Imaging services.** In: *A data book: healthcare spending and the Medicare program. MedPAC* 2010:3–17. <http://www.medpac.gov/chapters/Jun10DataBookSec8.pdf> (accessed 14 Jan 2011).
31. H.R. 3962. Preservation of Access to Care for Medicare Beneficiaries and Pension Relief Act of 2010, P.L. 111–92. 2010 Jun 25