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Reforming the Primary Care Physician Payment System

Eliminating E & M Codes and Creating the Financial Incentives for an "Advanced Medical Home"

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Abstract: The problem faced by primary care physicians is that they can only maintain or increase their (inflation adjusted) incomes by increasing the volume of visits and associated services. The fundamental flaw in a fee-for-service system is that only paying for individual services creates incentives for more services. This article offers a very different approach to paying primary care physicians that will result in both significantly higher incomes for these underpaid professionals together with incentives for creating a medical home. **Key words:** *capitation*, *comprehensive payment*, *medical home*, *primary care*, *resource-based relative value scale*

MEDICARE implemented a new payment system (the resource-based relative value scale, RBRVS) for all physicians in 1992. The RBRVS-based payment system theoretically paid for physician services on the basis of the cost of providing the service instead of historical prevailing charges. One of the main objectives of the RBRVS system was to increase payment to cognitive specialties including primary care physicians (PCPs). While the relative value of cognitive services increased, the number of services also increased for reasons that Maxwell, Zuckerman, and Berenson (2007) recently described in a 10-year review of the RBRVS system. They concluded that "differences in rates of growth in the relative value unit volume of physicians' work and the total relative value unit volume among service types and specialties affect the overall costs to Medicare, and they should be considered in policies to control Medicare spending" (p. 1861). Thus, while the RBRVS system provided a more rational basis for controlling the payment level for each type of physician services, it provided no controls over the volume of services.

The problem faced by PCPs is that they can only maintain or increase their (inflation adjusted) incomes by increasing the volume of visits and associated services. The fundamental flaw in a fee-for-service system is that paying for individual services creates incentives to generate more services. In addition, to more visits and services, there is no financial benefit to a PCP, should they reduce their use of ancillary services, control the appropriate number of referrals to specialists, refer to more efficient specialists, or invest in better coordinating care to reduce hospital admissions and readmissions. Thus, PCPs have the financial incentive to increase the services

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and volume of visits they provide and no financial incentive to decrease the services they order.

This problem is clearly because of the unit of payment for PCPs (ie, individual visits and services). Fee-for-service payment creates a situation where physician and payers' incentives are completely misaligned. Payers want PCPs to use resources efficiently while rewarding inefficiency by paying for every additional service utilized on the RBRVS fee schedule. PCPs who attempt to become more efficient can only do so by reducing their relatively low incomes. Furthermore, there currently does not exist an effective financial mechanism to foster the goals of both consumers and PCPs—an "advanced medical home" for patients—that provides physicians with the incentive to increase coordination of care for their entire panel of patients.

The American College of Physicians has introduced the term "advanced medical home" to describe physician groups that practice patient-centered care promoting improved outcomes in terms of quality and resource use (value; Barr & Ginsburg, 2006). The following details a series of payment reforms that adhere to these goals while heeding the call for fundamental payment redesign to achieve them.

Reform of the payment system for PCPs with the ultimate objective of facilitating the "advanced medical home" concept is centered on 4 principal objectives:

1. Financially reward PCPs for providing coordinated care to their patients by having PCP payment based in part on the overall healthcare resource use of their patients.
2. Reform the current visit–based PCP payment system from one that pays for reported physician effort using the current procedural terminology (CPT) E & M codes to a transparent system on the basis of the patient's condition, that is, from a procedure-based reimbursement to one based on the patient's diagnoses and burden of illness.
3. Do not increase the administrative burden on PCPs.
4. Provide a continuum of options in terms of the level of financial risk a PCP accepts for the coordination of care of his or her patients.

Incentives for efficiency are primarily driven by the nature of the unit of payment and the inherent level of financial risk associated with the unit of payment. Units of payment that aggregate many individual services into a single payment create the incentive to use the individual services efficiently by putting the PCP at financial risk for the volume of services provided. Fee-for-service gives PCPs few incentives to become more efficient because it transfers no risk from the insurer to the provider. The largest unit of payment is a fixed payment for all the care provided to an individual over time (eg, 1 year). This is capitation payment, and it provides global incentives for efficiency. This is the way that insurance companies and health maintenance organizations (HMOs) are paid. HMOs combine the functions of insurer and provider and, for this reason, are able to act on these incentives. Insurance companies have the same global incentives as HMOs but are only able to act on these incentives in limited ways. Furthermore, only large organizations like insurance companies and HMOs can handle the financial risk imposed by capitation payment. Because of the level of financial risk, capitation payment for all healthcare services incurred by patient is not a realistic option for PCPs.

CREATING THE FINANCIAL INCENTIVES FOR AN "ADVANCED MEDICAL HOME"

To reduce incentives to provide unneeded medical care, payers need to transfer a limited amount of financial risk to PCPs. Because PCPs often practice alone or in small groups, the insurer needs to be able to transfer risk in a limited but flexible way so that PCPs can accept the level of financial risk (and reward) that they are able to handle. In addition, as PCPs become adept at handling small amounts of financial risk, they may be willing to accept more financial risk over time. Thus, flexibility in defining the unit of payment is

essential to effectively transfer financial risks. This means that intermediate steps between fee-for-service and capitation are needed to provide PCPs incentives for efficiency.

For hospitals, prospective case rate payment by diagnosis related groups (DRGs) is an intermediate step between fee-for-service and capitation. Under a DRG-based payment system, hospitals are responsible for all services provided during the hospital stay. The aggregation of all services provided during the stay into a single payment creates the incentive for efficiency. There is, however, a critical difference between hospitals and PCPs. Hospitals have the infrastructure to provide directly or purchase and pay for all services needed during a hospitalization. In contrast, PCPs can only provide a very limited number of services directly (eg, electrocardiogram, chest radiograph) and all other services (eg, laboratory, magnetic resonance imaging) that the PCP orders are provided by other providers. The aggregation of services into larger units of payment would require the PCPs to develop infrastructure to track and pay for the services they order. Except for office PCP services, aggregation of services is not practical for the vast majority of PCPs. Thus, there is an inherent dilemma. The aggregation of services into larger units of payment creates an administrative burden on PCP that makes an aggregated unit of payment impractical. Thus, the challenge is to design a PCP payment system with the financial incentive for efficiency without creating an unreasonable administrative burden on PCPs.

A reform of the PCP payment system can be accomplished in 2 phases. The first phase would be to shift from the current RBRVS-based payment system that pays primarily on the basis of reported effort (ie, the CPT E & M codes) to a visit-based payment that pays on the basis of the patient's condition. In the first phase, all office services directly provided by the PCP would be aggregated into the payment for the visit. During this phase, medical care would be described at the individual visit level, and visits will be defined more or less inclusively.

The second phase would adjust the visit payment amount for a PCP on the basis of the PCP's historical efficiency in terms of ordering services delivered by other providers (ranging from magnetic resonance imaging that the PCP orders but done by another provider to specialist services). In this phase, a PCP's payment would, in part be based on the patient's overall burden of illness and the relative efficiency with which overall healthcare services are utilized. The PCP would *not* be responsible for actually paying for the services they order but would be held financially accountable for the relative efficiency of the delivery of those services. Such financial accountability goes to the heart of what PCPs do in an "advanced medical home" but which go unrecognized because of the constraints that the current payment system imposes. Moving to the second phase would be optional for PCPs.

PHASE I

The first step in reforming the PCP payment system is to abandon the RBRVS-based fee-for-service payment structure. In particular, the elimination of any use of the CPT E & M codes that focus on reported effort during a visit is essential. This requires that an alternative unit of payment for PCP payment be developed. There are only 2 visit-based systems, ambulatory patient groups (APGs) or ambulatory payment classification system. The Centers for Medicare and Medicaid Services uses the latter for payment of hospital outpatient services. Unfortunately, it uses E & M codes as the distinguishing variable for medical/diagnostic encounters. APGs are the only visit-based encounter system that uses diagnosis as the classificatory variable for medical visits. The APGs were developed in 1990 under a Centers for Medicare and Medicaid Services contract (Averill et al., 1993; Goldfield, Averill, Grant, & Gregg, 1997). The APGs are a patient classification system that was designed to be used as the basis of an ambulatory payment system. In 1995, Iowa Medicaid became the first payer to implement an APG-based payment system (Vertrees, Pollatsek, Sheets, & Stark, 1994). APGs were developed primarily to encompass ambulatory settings such as same-day surgery units, hospital emergency departments, and

outpatient clinics. During the development of APGs, facility costs such as supplies and equipment as well as professional time were taken into consideration. In 2007, work on Version 3.0 of the APGs was completed. Unlike Version 2.0 of the APGs, Version 3.0 of the APGs was constructed to be applicable to a wider scope of ambulatory settings including physicians' offices.

APGs provide a means of packaging services during a visit into a single unit of payment. This packaging is flexibly defined and is under the user's control. Most importantly for PCP payment, the APG assigned for a medical visit is based on the patient's diagnoses and not the reported physician effort (ie, CPT E & M codes). Thus, APGs are patient-centric with a focus on the problems presented by the patient. Through the application of APGs, phase I would reform the basic PCP visit payment system by aggregating the services delivered by the PCP into a single payment primarily on the basis of the condition of the patient.

PHASE II

Phase II would expand the PCP's financial accountability beyond the services directly delivered by the PCP to also include the services ordered (eg, laboratory test, referral to specialists) and, in a limited way, to resource-related outcomes (eg, visits to emergency department, avoidable hospitalizations). Because a PCP's financial risk associated with a single visit is very limited, a clinical description of the patient that focuses on the problem that necessitated the visit is sufficient. However, for PCPs to be held accountable for services ordered and resource-related outcomes, a more precise and comprehensive description of the illness burden of the patient is necessary. This is the cornerstone of building an "advanced medical home."

The reality of a fee-for-service system is that patients are likely to be seen by multiple physicians across multiple settings. Thus, a complete profile of the disease burden of the patient requires integration of data across all the healthcare encounters experienced by the patient. While such information is not readily available to the PCP, it is available to the insurer. Since in a fee-for-service system, payment for services requires submission of a claim that includes the relevant clinical information, the insurer has the information needed to assess the overall illness burden of the patient. Thus, it is possible for the insurer to develop a relative measure of the overall disease burden of the patient (as opposed to the immediate problem necessitating the visit). Since patients with the same reason for visit who have a greater overall illness burden are likely to require more direct services as well as need more services ordered, a patient adjustment to the visit-based payment amount for the patient's overall illness burden is needed. The packaging of services into the visit payment and the accountability for the services ordered and resource-related outcomes create the need for a disease burden adjustment. In other words, the greater the financial risk, the greater the need for a complete description of the condition of the patient. With increased financial risks comes the danger that PCP might avoid certain types of high-cost patients. An illness burden adjustment reduces the chance that biased patient selection will occur.

There are risk adjustment systems available that can be used to determine the relative disease burden of a patient. For example, clinical risk groups (CRGs) are 1 such system (Hughes et al., 2004). On the basis of historical claims data, CRGs assign a person to a severity adjusted clinical group. Individuals in each clinical group consume similar amounts and types of healthcare resources over time. Thus, systems like CRGs can use the most recent historical data available to provide the basis for prospectively adjusting visit payments for a patient's overall burden of disease.

Given a patient's burden of illness adjustment (eg, CRG based), an adjustment factor related to a PCP's relative efficiency in ordering services and the PCPs resource-based quality-of-care outcomes can be developed. The first step in developing such an efficiency adjustment factor is to identify the services historically ordered by the PCP. Most insurers can identify the provider who orders individual services. The historical amount and type of services ordered by a PCP can be

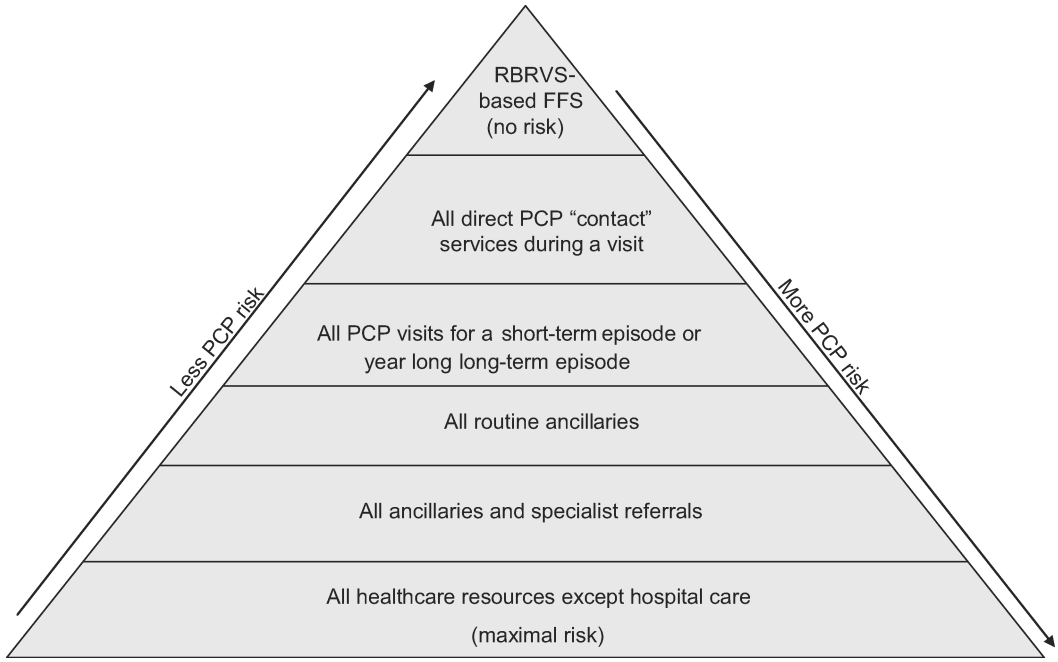

Figure 1. Scope of service for which a primary care physician (PCP) accepts financial responsibility. *Note:* RBRVS indicates resource-based relative value scale.

compared to what would be expected on a case-mix–adjusted basis. Thus, PCPs with high and low service ordering practices can be identified. In addition to historical service ordering efficiency, the historical case-mix-adjusted relative amount of resource-based outcomes can be determined and compare to what would be expected. Thus, outcomes such as avoidable hospitalizations and visits to the emergency department can also be factored into PCP efficiency adjustment.

The level of financial risk for a PCP is directly related to the scope of healthcare resources for which the PCP accepts responsibility. Figure 1 illustrates the different levels of financial risk associated with alternative scopes of services for which the PCP has responsibility. Under the proposed approach, the PCP can select a particular level of risk (ie, scope of services) and the PCP efficiency adjustment would reflect that level of risk. In other words, the greater the risk accepted by the PCP, the greater the PCP efficiency adjustment (either up or down). An efficient PCP who only accepts risk for routine ancillaries would not have their visit payment increased as much as an efficient PCP who accepts risk for all ancillaries and specialist care. Thus, the opportunity for PCPs to increase their income is directly related to their relative efficiency and the scope of services for which they accept responsibility.

Complete system

The overall design of the reformed PCP payment system is illustrated in Figure 2. The PCP payment system continues to function as a visit-based payment system. However, the visit payment amounts would be adjusted for the burden of disease of each patient and adjusted for the PCPs historical ordering efficiency and resource-based outcomes associated with the level of risk selected by the PCP.

In phase II, PCP payment for a visit would be computed as follows:

Total payment = [APG payment for all PCP services during the visit] × [patient burden of illness adjustment] × [PCP efficiency adjustment based on the level of risk accepted by thePCP]

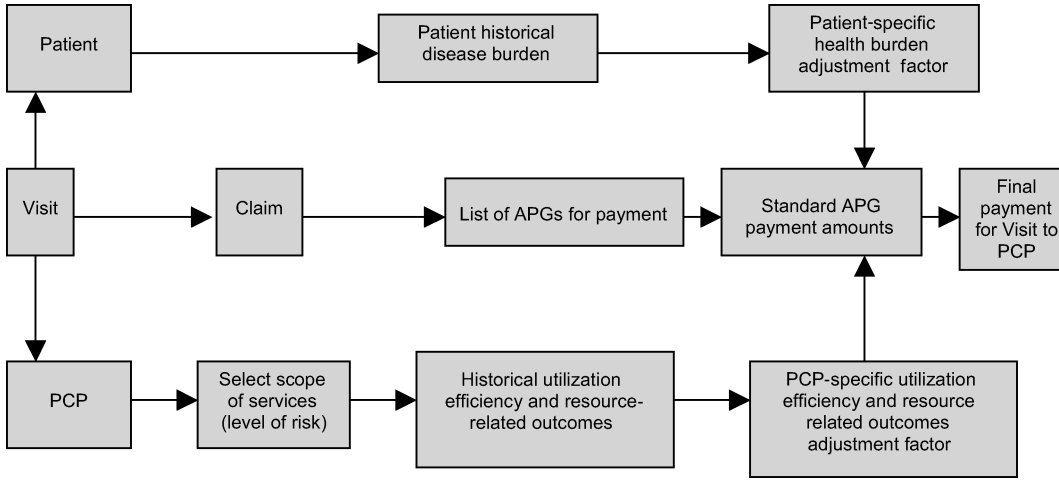

Figure 2. Ambulatory patient group–based primary care physician (PCP) payment model with disease burden and primary care physician's performance adjustment factors.

To illustrate how these adjustments would work, consider 2 PCPs in Table 1. In the prior year, each PCP had 100 visits for patients whose primary problem was diabetes. However, the burden of illness of their mix of diabetic patients differs substantially. Many more of the visits for PCP 1 have multiple chronic problems, and as a result the burden (severity) of illness of his or her diabetic patients is, on average, higher (ie, more 3s and 4s on a 1–4 scale). Patients with a greater burden of illness require more time per visit (more evaluation, more counseling, more education, etc.).

The burden of illness adjustment recognizes the greater amount of time per visit required by the patients of PCP 1. Column 4 in Table 1 shows the standard visit time for diabetic patients at each burden of illness level. On the basis of these standard visit times, PCP 1 has an expected average visit time of 20.4 minutes (sum of the product of column 2 times column 4 divided by 100) and PCP 2 has an expected average visit time of 17.2 minutes (sum of the product of column 3 times column 4 divided by 100). If the overall standard average visit time for diabetic patients was 19 minutes, the burden of illness of PCP 1's diabetic patients requires 7.4% more time per visit and the burden of illness of PCP 2's diabetic patients requires 9.5% less time per visit. Thus, in the prospective year, the burden of illness adjustment factor would increase PCP 1's payment per visit by 7.4%% and decrease PCP 2's payment per visit by 9.5%.

Suppose further that the level of risk for the performance adjustment factor encompassed all ancillaries and specialist referrals, and that in the prior year, PCP 1's diabetic

Table 1. Diabetic visits for 2 primary care physicians (PCPs)

Burden of illness level	PCP 1 visits	PCP 2 visits	Standard visit time	Standard annual expenditures
1	10	30	12	600
2	40	40	16	1200
3	20	20	22	3200
4	30	10	28	4500

patients actually incurred $220,000 in expenditures and PCP 2's diabetic patients actually incurred $190,000 in expenditures. Column 5 in Table 1 contains the standard average annual expenditures for diabetic patients in each burden of illness level. On the basis of these standard average expenditures, PCP 1 has expected expenditures of $253,000 (sum of the product of column 2 times column 5) and PCP 2 has expected expenditures of $175,000 (sum of the product of column 3 times column 5). Thus, PCP 1 utilizes 13% less resources than expected (1 – 220,000/253,000) and PCP 2 utilizes 8.6% more resources than expected (190,000/175,000). Therefore, in the prospective year, the efficiency adjustment factor would increase PCP 1's payment per visit by 13% and decrease PCP 2's payment per visit by 8.6%.

In the example, PCP 1 has historically treated a high burden of illness panel of patient efficiently so overall his or her per visit payment in the prospective year would be increased by 21.3% (1.074 times 1.13). PCP 2 has historically treated a low burden of illness panel of patients inefficiently so overall his or her per visit payments in the prospective year would be decreased by 18.9% (1.095 times 1.086). The precise calculation of the burden of illness and efficiency adjustment factor is presented for illustration purposes. Using the same data, there are many alternative ways to compute these factors. For example, instead of applying the full 21.3% increase for PCP 1 and the full 18.9% decrease for PCP 2, some fraction of those amounts can be applied (eg, 50%% reducing the visit payment adjustments to 10.65% and 9.45% for PCP 1 and PCP 2, respectively).

For the PCP, the administration of such a system is straightforward. PCPs would continue to submit claims as they currently do. The only difference is that emphasis in determining the payment amount is more related to the diagnosis codes on the claim as opposed to the procedure codes in the form of E & M codes. The insurer would remit payment showing the standard APG payment. A burden of illness adjustment factor and PCP efficiency adjustment factor would be shown on the remittance and applied to the APG payment amount to determine the final visit payment. The burden of illness adjustment factor for each patient would be updated at least annually and the PCP efficiency factor would be updated at least every 6 months. As PCPs improve their relative efficiency, the visit payment amount would automatically adjust and visit-based payments to the PCP would increase.

A PCP payment system as described in Figure 1 has many positive attributes:

- no changes to current PCP visit-based billing system is required;
- no additional infrastructure is required for PCPs;
- minimal charges to payers claims processing systems;
- visit payment focus on patient's condition and not PCP-reported effort;
- PCPS are at financial risk for excess utilization;
- PCPs are financially rewarded for resource efficiency;
- patient burden of illness is explicitly recognized in the visit payment;
- financial incentives for biased selection of patient are eliminated;
- visit payment automatically adjusts for changing patient mix and PCP efficiency; and
- data readily available for payers to implement system.

The proposed system strikes a balance between PCP infrastructure capabilities and the needs to provide meaningful financial incentives for PCPs to improve efficiency. It also recognizes that all existing risk adjustment systems are limited in their ability to accurately adjust capitated payments at the PCP level (Winkelman & Syed, 2007). An APG-based per visit PCP payment system with a burden of illness adjustment and resource efficiency adjustment creates a virtual episode/capitation system that overcomes the limitations of existing capitated risk adjustment systems.

The healthcare system must provide a means by which PCPs can both provide a medical home and increase their income

without having the administrative burden of reimbursing other providers for services that the PCP is coordinating (Goroll, Berenson, Schoenbaum & Gardner, 2007). The prospective application of retrospectively established efficiency adjustment factors at the time of a visit allows recognition of the PCP case mix and relative efficiency without creating an administrative burden for the PCP and without significant changes to the claims processing systems of payers. From a payment perspective, it creates a virtual medical home that eliminates the insurance, infrastructure, and claim adjudication barriers to creating an "advanced medical home."

The adjustment of individual visit payment amounts by a prospectively applied but retrospectively established adjustment factors is an evolutionary change. Although paying PCPs a single all-inclusive payment for all services delivered or ordered by the PCP for an episode of an acute disease or for a defined period of time for a chronic disease may more directly communicate the incentive for efficiency, it is simply not practical. The reform proposed in this article creates a virtual episode/capitation system operationalized in the context of an APG-based visit-based payment system that can be implemented today. It also permits the PCP to accept varying levels of financial risk depending on the extent of the healthcare resources for which the PCP accepts responsibility. The visit intensity factor is particularly relevant for patients with a chronic illness, all of whom will likely need ongoing visits to the PCP. Clearly, the medical home concept is ideal for patients who have a chronic illness. Healthy patients will be well served in a medical home that emphasizes preventive services. Over time, this "advanced medical home" can become a true home as PCPs are paid on the basis of their management of acute short-term episodes and ongoing chronic long-term care for the entire patient.

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