

Forum

Paying for Outcomes, Not Performance: Lessons from the Medicare Inpatient Prospective Payment System

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The three interrelated goals of the Affordable Care Act (ACA) of 2010 are to improve access, improve quality, and contain the costs of health care in the United States.¹ Without cost containment, neither expansion of access to the uninsured nor continued coverage to those already insured will be sustainable. Inpatient hospital care is the largest single component of health care costs. In this article, we propose principles that can provide the foundation for a practical and effective outcomes-based payment system reform of the inpatient hospital payment system.

A substantial portion of hospital payments result from the costs of the additional care needed to treat patients who experience negative outcomes. For example, the occurrence of potentially preventable postadmission complications was estimated to increase overall inpatient hospital costs by 9.39% in California and 9.63% in Maryland.² In Florida, 6.98% of all acute care hospital admissions were identified as potentially preventable readmissions that occurred within 15 days of a hospital discharge.³ Unfortunately, efforts to reduce negative outcomes are undermined because a negative outcome often results in a payment increase to a hospital rather than a payment decrease. This perverse financial incentive represents a fundamental flaw in the existing payment system design. However, this incentive can be eliminated if hospital payment rates are adjusted to reflect the outcomes that a hospital actually achieves. Recent federal legislation is clearly moving Medicare payment policy in this direction. For example, the Deficit Reduction Act of 2005⁴ requires Medicare to eliminate any payment increase associated with a limited number of postadmission complications. The ACA requires Medicare to reduce payments to hospitals with high readmission rates.¹

Pay-for-performance initiatives have been the primary approach used to link payment and quality. Most such initiatives, such as the Centers for Medicare & Medicaid Services (CMS) Value-Based Purchasing Program, have focused mostly on process measures, along with limited outcome measures pri-

marily related to mortality. Detailed process-of-care pathways (for example, administering an aspirin to a heart attack patient within the first few hours of admission) are identified, and hospitals are required to report their adherence to the prescribed processes. Hospitals achieving rates of adherence to the processes of care that are above a threshold standard or that show significant improvement receive a financial bonus. The assumption underlying this approach is that good processes lead to good outcomes (for example, lower complication rates). There is inconsistent evidence, however, that hospitals that adhere to these process criteria actually achieve better outcomes.⁵⁻⁷ If process measures are used as the basis of payment adjustments, the relative importance and magnitude of the payment adjustment for each one of the hundreds, if not thousands, of potential process measures must be established, a daunting if not impossible task, especially because the cost of a failure in process is often difficult to establish. In contrast, the financial consequences of outcome measures such as complications or readmissions can be readily measured and used as the basis for establishing meaningful payment adjustments. For example, with the requirement since 2008 for hospitals to report a present on admission indicator for each secondary diagnosis, inpatient complication rates can be readily determined from claims data⁸ and their financial impact computed.²

A “pay for outcomes” (P4O)-based payment reform would adjust payments on the basis of a hospital’s relative performance on outcomes rather than processes, thereby creating a financial incentive for hospitals to improve outcomes by reducing the rate at which negative outcomes occur. The ultimate success of P4O-based payment reform in reducing health care costs and improving patient outcomes is highly dependent on its design and implementation. This article focuses on P4O for hospital inpatient care and distills the lessons learned from the successful implementation of the Medicare Inpatient Prospective Payment System (IPPS) into a set of core principles that can guide the design of a P4O hospital payment system.

Lessons from the Medicare Inpatient Prospective Payment System

The diagnosis-related group (DRG)–based IPPS dramatically reduced the rate of increase in Medicare inpatient expenditures and is generally considered one of the most successful payment reforms ever implemented.⁹ IPPS resulted in a substantial decrease in length of stay and resource use.¹⁰ Relative to the pre-IPPS actuarial projections for inpatient Medicare expenditures, IPPS resulted in a reduction in Medicare inpatient expenditures of \$10 to \$18 billion.^{11,12} Although the financial incentives also resulted in increased patient instability at the time of discharge (patients discharged “sicker and quicker”),¹³ IPPS was not associated with increased mortality.^{14,15} The potential negative impact on quality of care was recognized early in the implementation of IPPS and was one of the reasons an expanded Peer Review Organization and similar efforts were implemented. Overall, IPPS achieved its intended objectives and resulted in a substantial reduction in Medicare inpatient expenditures,⁹ with no worsening of outcomes for hospitalized Medicare patients.¹⁵

By setting a fixed price for each DRG, IPPS corrected the financial incentive to provide more services that is inherent in any cost-based payment system. With services bundled into a single payment amount, financial risk shifted from Medicare to the hospital, giving hospitals the incentive to use resources efficiently. Similarly, in P4O, the costs of the additional care necessary to treat patients who experience a negative outcome would essentially be added to the IPPS payment bundle, shifting financial risk from Medicare to the hospital, giving hospitals the financial incentive to improve outcomes.

The bundling of services in IPPS created the need to establish an acceptable level of resource use within the bundle. Indeed, the 1982 Report to Congress that proposed IPPS stated that the objective of IPPS was “to set a reasonable price for a known product.”¹⁶ The determination of a “reasonable price” essentially sets a production efficiency standard for each DRG. Thus, inherent in any bundled payment system is the need to set performance standards, which, in the case of IPPS, were the DRG prices. A hospital is rewarded or penalized financially on the basis of its performance relative to the standard. In IPPS the standard price was empirically established on the basis of the national average cost in each DRG. Similarly, in P4O there would be performance standards expressed as expected outcome rates rather than prices. Financial rewards and penalties would be determined on the basis of a hospital’s outcome performance relative to the P4O standard outcome rate.

The financial risk imposed by IPPS was sufficiently substan-

Table 1. Essential Design Principles for a Successful Pay-for-Outcomes (P4O) Payment Reform

1. P4O should initially focus on those outcomes for which a quality failure results in an increase in payment.
2. P4O financial incentives should be substantial enough to induce hospital behavior change.
3. P4O should focus on outcomes that are amenable to quality improvement efforts.
4. P4O outcome standards should be empirically derived based on performance levels that are being achieved by the best-performing hospitals.
5. P4O should not mandate the specific care processes that hospitals use to achieve the P4O outcome standards.
6. P4O financial rewards and penalties should be determined based on a hospital's overall relative outcome performance and applied as an overall hospital payment adjustment, rather than as a patient-specific payment adjustment.
7. The determination of the relative outcome performance of a hospital must be risk adjusted to take into account patient severity of illness.
8. P4O methodologies must be transparent, clinically precise, and comprehensive, with a uniform and consistent structure.

tial to motivate hospitals to reassess their internal practices and processes. IPPS did not impose any external process requirements on hospitals but instead allowed hospitals to respond to the IPPS incentives at the local level. Thus, IPPS established the outcome standard (price) but allowed individual hospitals to decide how best to meet that outcome standard.

In summary, IPPS created substantial financial risk (incentives) for hospitals by setting an empirically derived outcome performance standard (the bundled DRG price) that was expressed in a transparent and clinically precise manner (the DRGs). Because P4O essentially includes the cost of negative outcomes in the payment bundle, the lessons learned from the implementation of IPPS can serve as a guide for the design of P4O–based payment reform.

Design Principles for a Successful Pay-for-Outcomes Payment Reform

The underlying design of IPPS must be adapted to reflect the unique requirements of incorporating outcomes into a P4O payment system. The essential design principles for a successful P4O payment reform are listed in Table 1 (above).

As with any payment system reform, the implementation details are crucial to its ultimate success or failure. A discussion of each of the eight P4O principles and their associated implementation issues follows, preceded by a description of the application of the principle in IPPS. The discussion of the P4O

principles uses inpatient complications and readmissions as examples of outcomes that can be used as the basis of P4O. These outcomes were emphasized because of their large financial impact and the legislative requirement that Medicare institute payment adjustments for them. However, the basic approach can be readily applied to other outcomes and care settings.

1. P4O SHOULD INITIALLY FOCUS ON THOSE OUTCOMES FOR WHICH A QUALITY FAILURE RESULTS IN AN INCREASE IN PAYMENT

Similar to the way that IPPS rectified the perverse financial incentive of rewarding longer lengths of stay and greater resource use by setting bundled payment amounts, the first priority of P4O reforms should be to reduce or eliminate any increase in payment resulting from negative outcomes caused by quality failures, such as preventable admissions (for example, ambulatory sensitive conditions), readmissions, complications, and emergency department visits. The effect will be to eliminate the perverse financial incentive of rewarding hospitals for poor outcomes. Although the focus of P4O should initially be on a reduction in negative outcomes, P4O can also be used to provide financial incentives to improve other outcomes that measure the “value” of care, such as restoration of functional status, reduction in pain and discomfort, and time out of work.¹⁷

2. P4O FINANCIAL INCENTIVES SHOULD BE SUBSTANTIAL ENOUGH TO INDUCE BEHAVIOR CHANGE

The implementation of IPPS put hospitals at substantial financial risk. Although overall IPPS was implemented on a budget-neutral basis, individual hospitals that did not meet or exceed the efficiency standards inherent in the DRG payment levels risked insolvency. Hospital response to the IPPS financial incentive for efficiency varied directly with the size of the threatened losses. The quartile of hospitals facing the greatest potential shortfalls (approximately 5% of total payments) cut their costs the most, whereas hospitals that foresaw little or no loss cut their costs the least.¹⁸ Thus, the extent to which hospitals implemented behavior changes necessary for improving efficiency was directly related to the magnitude of the potential financial loss they faced.¹⁰ IPPS further strengthened the incentive for efficiency by paying on a per-case basis such that profit or loss was evident on a case-by-case basis.

The financial risks imposed by P4O must be sufficiently substantial to motivate hospitals to make the investments nec-

essary to improve outcomes. Achieving significant improvements in outcomes will require considerable effort, including reorganization and retraining of staff, by hospitals and physicians. Without sufficient financial motivation, hospitals are unlikely to make the investment necessary to achieve the behavioral changes needed to substantially improve outcomes.

As an example of an incentive with minimal financial impact, CMS has eliminated any payment increase associated with 11 types of postadmission complications (referred to as Hospital-Acquired Conditions, or HACs).¹⁹ Because the CMS method eliminates the entire payment increase associated with HACs, they have been limited to complications thought to be highly preventable and therefore are very narrow in scope. As a result, HACs do not include high-volume complications such as postoperative pneumonia and septicemia. Indeed, CMS has estimated the HACs’ impact to be less than 0.02% of Medicare IPPS payments,¹⁹ an amount unlikely to impact outcomes or expenditures.

Other efforts have put larger amounts of money at stake. In 2010 New York State implemented a P4O Medicaid payment reform that was mandated to reduce annual Medicaid payments to hospitals with high readmission rates by \$47 million²⁰ (approximately 1% of Medicaid inpatient expenditures), thereby creating a financial incentive to reduce unnecessary readmissions. In 2009 the state of Maryland initiated a system of payment incentives on the basis of a hospital’s actual number of complications versus a statewide target rate for each of 49 categories of postadmission complications, including urinary tract infection, septicemia, and iatrogenic pneumothorax.²¹ The hospital payments at risk in the Maryland system are equal to one-half of one percent of total all payer inpatient hospital revenue in the 47 Maryland hospitals (approximately \$60 million annually). After the first year of implementation, hospitals in Maryland reduced the frequency of preventable complications by 11.9% (after adjusting for changes in patient mix), thereby removing approximately \$62.5 million of cost associated with the preventable complications.²² Although a financial incentive of one-half of one percent of total inpatient revenue appears to have been sufficient to induce behavior change in Maryland, it remains to be seen if this magnitude of financial incentive is sufficient across a wider range of quality measures or if more substantial financial incentives will be necessary.

3. P4O SHOULD FOCUS ON OUTCOMES THAT ARE AMENABLE TO QUALITY IMPROVEMENT EFFORTS

Hospitals were able to respond to the financial incentive for efficiency in IPPS because they had substantial control over the

resources used during a hospital stay. Considerable effort by hospitals and physicians, including reorganization and retraining of staff, were often necessary to achieve efficiency gains. Hospitals clearly recognized that such efforts could lead to the desired efficiency gains and therefore made the necessary investments.

P4O should be directed at those outcomes that are amenable to quality improvement (QI) efforts. Such outcomes should therefore be those (1) that are most likely to reflect underlying quality of care problems and (2) over which a hospital has a reasonable degree of control or influence. Both inpatient complications and readmissions are outcomes that meet both these criteria. Patients readmitted soon after discharge are more likely to have a process of care problem during the initial hospitalization (for example, poor discharge planning, medication error), poor postadmission follow-up (for example, no primary care physician appointment), or a postadmission complication.^{23–27} Interventions have been shown to reduce readmissions for a broad range of chronic conditions, most notably congestive heart failure and other heart disease,^{28–31} asthma,³² and sickle cell anemia.³³ Other studies have shown similar results for elderly patients with a broader range of chronic conditions.^{34–36} Interventions have been shown to reduce inpatient complications for a number of complications of care, including urinary tract infections³⁷ and catheter-related bloodstream infections.³⁸

4. P4O OUTCOME STANDARDS SHOULD BE EMPIRICALLY DERIVED BASED ON PERFORMANCE LEVELS THAT ARE BEING ACHIEVED BY THE BEST-PERFORMING HOSPITALS

Because IPPS set the DRG payment rate on the basis of the average cost in each DRG across all hospitals, the DRG payment rates represented an empirically derived performance standard that was actually being achieved by hospitals. The DRG prices were viewed as a realistic and achievable objective rather than an unrealistic theoretical construct. In retrospect, however, setting the DRG price on the basis of the average cost in each DRG created a standard that was too readily achievable. An average price derived from the blending of high- and low-performing hospitals represented an acceptable, rather than optimal, performance standard. At the time that IPPS was implemented, it was anticipated that the basis for establishing the DRG price would make a transition to a more demanding standard, such as the median cost in each DRG.¹⁶ This transition has never occurred. Unfortunately, once implemented, refinements to the operational details of a payment system reform can meet as much political opposition as the initial

implementation of the reform itself.

The outcome standard used to determine P4O financial rewards and penalties should be empirically derived on the basis of the outcome rates of the subset of hospitals that are consistently achieving better-than-average outcomes (for example, the 50% of hospitals that have the lowest risk-adjusted complication rate or readmission rate). Such a demanding standard will create a strong financial incentive to improve outcomes. Outcome standards should reflect the best empirically derived outcomes that are consistently being achieved—that is, through best practice. The subset of best-performing hospitals for inpatient complications and readmissions has been shown to be consistent over time.^{3,8} This approach to defining best practice has the advantage in that it creates a performance standard that has been empirically demonstrated to be readily achievable.

Alternatively, the outcome standard could be set to achieve a specific level of savings. For example, for the purpose of determining readmission-related hospital payment reductions, New York Medicaid has set a readmission standard that is 24% below the risk-adjusted expected readmission rate.³⁹ Using a best practice standard in a redesigned IPPS that reduces payments to hospitals with high readmission rates could reduce Medicare inpatient expenditures by 2% to 4%.⁴⁰ During the early stages of evolution of P4O, it is critical to set long-term performance expectations.

5. P4O SHOULD NOT MANDATE THE SPECIFIC CARE PROCESSES THAT HOSPITALS USE TO ACHIEVE THE P4O OUTCOME STANDARDS

IPPS created the financial incentive for efficiency but did not impose any external process requirements on hospitals. Hospitals were allowed to respond to the change in financial incentives in a manner that worked best in their local community. By focusing on the target outcome (cost of care) rather than prescribing processes for improving efficiency, IPPS allowed diverse practices and processes to be used by hospitals to achieve the cost performance levels consistent with the DRG price.

P4O should create the financial incentives to reduce the rate of negative outcomes, but at the same time should not mandate the specific care processes that hospitals use to improve P4O-related outcomes. Rather than require the time-consuming and costly process of collecting and reporting adherence to a large number of process measures, P4O should allow hospitals to determine the practices and processes needed to improve their outcome performance.

Given care processes' widespread use and the substantial

effort that has gone into their development, they will clearly be an important part of hospital response to P4O. The issue is not whether care processes should be used but whether centrally mandated care processes should be the basis of determining payment adjustments under P4O. In the long run, the most effective and useful process measures will be those that are most clearly related to improved outcomes. Although the CMS Hospital Value-Based Purchasing Program will initially be largely based on process measures, future expansion of the quality measures will be based on outcome measures, including mortality, HACs, and the Agency for Healthcare Research and Quality Patient Safety Indicators.⁴¹

6. P4O FINANCIAL REWARDS AND PENALTIES SHOULD BE DETERMINED BASED ON A HOSPITAL'S OVERALL RELATIVE OUTCOME PERFORMANCE AND APPLIED AS AN OVERALL HOSPITAL PAYMENT ADJUSTMENT, RATHER THAN AS A PATIENT-SPECIFIC PAYMENT ADJUSTMENT

Because the IPPS payment rate for a DRG is based on the average cost across all hospitals for all patients assigned to that DRG, hospitals intuitively expect that some patients will cost more and others will cost less than the DRG payment and have accepted the concept of being paid at the average cost for a DRG.

Although the concept of averaging has been effective in IPPS, it does not readily transfer to P4O. For an individual patient, a negative outcome such as a readmission or a complication is considered either preventable or not preventable. Applying a P4O payment adjustment only to those patients experiencing a particular negative outcome implies that the outcome was preventable for that specific patient. Even if the magnitude of the payment adjustment is established as an average that reflects the proportion of the time the negative outcome is actually preventable, there will still be significant perceptual problems.

To hospitals and physicians, the imposition of any P4O penalty directly linked to a negative outcome for an individual patient implies that there was a preventable quality problem for that patient, an implication that the physician and the hospital will interpret as an accusation of substandard care.⁴² With the exception of the small number of negative outcomes that are virtually always preventable, implicitly labeling the care provided to an individual patient as substandard will provoke resistance to any outcome-related payment adjustments. Physicians and hospitals will, predictably and understandably, respond defensively, not only to save face and protect reputa-

tions, but also out of fear that the perceived failure could serve as the basis of a malpractice suit. These defensive responses can include demands for an appeals process to contest any judgments considered incorrect or unfair, as well as efforts to discredit the methods used to identify preventable outcomes. Both these responses will lead to increased administrative costs and will detract from the primary goal of improving outcomes by identifying and correcting potential quality problems. A payment policy that contains implied accusations related to specific instances of care is not an effective basis for fostering QI.

As an alternative to a patient-specific, case-by-case approach, P4O rewards and penalties should be based on a hospital's relative rate of negative outcomes and applied as an overall hospital payment adjustment. This approach should prove to be much more broadly applicable and more readily accepted by hospitals.⁴² Indeed, the Medicare Payment Advisory Commission (MedPAC) has proposed a readmission payment policy that would "reduce payments to hospitals with relatively high readmission rates."⁴³ Maryland's Health Services Cost Review Commission has implemented a rate-based payment adjustment for inpatient complications.²¹ The ACA requires Medicare to impose payment penalties on hospitals with high readmission rates, beginning in 2013. P4O payment adjustment based on a hospital's relative outcome performance avoids the problems generated by a focus on individual cases—implied blame, defensive responses, and diversion of effort from the primary purpose of improving outcomes.

A rate-based P4O approach also explicitly recognizes that negative outcomes will occur even with optimal care. Applying payment adjustments only to hospitals whose performance departs from the outcome rates being consistently achieved by other hospitals reflects the acknowledgement that there is a residual rate at which negative outcomes will occur even in the best-performing hospitals.

Because negative outcomes are often the result of deficiencies in coordination and communication within the hospital, a focus on systematic differences in rates of negative outcomes across hospitals is more appropriate and useful. Such a focus emphasizes that the entire health care team within the hospital has the responsibility for improving outcomes. This is in contrast to pay-for-performance systems based on gain sharing, which provides financial incentives to individual physicians. Thus, the financial incentives in a rate-based P4O system are directed at the hospital and focus on global rewards to a hospital for consistently achieving good outcomes.

7. THE DETERMINATION OF THE RELATIVE OUTCOME PERFORMANCE OF A HOSPITAL MUST BE RISK ADJUSTED TO TAKE INTO ACCOUNT PATIENT SEVERITY OF ILLNESS

Hospital payments under IPPS are explicitly adjusted for the case mix of a hospital because DRGs are used as the basic unit of payment. The explicit recognition of the impact of case mix on a hospital's cost through the DRGs was essential to creating a fair and equitable payment system.

The severity of an acute illness and the presence of comorbid conditions, in addition to influencing risk of mortality and morbidity, can have a substantial impact on a patient's susceptibility to negative outcomes such as readmissions and in-hospital complications.^{3,8} Hospitals that care for more seriously ill patients will therefore have higher rates of negative outcomes solely because of their case mix. As a result, in the absence of adequate risk adjustment, higher rates of negative outcomes for such hospitals would not necessarily reflect lower quality of care. Risk adjustment for the severity of illness of a hospital's patient population must be an integral part of the determination of P4O financial rewards and penalties.

Failure to perform adequate risk adjustment could unintentionally encourage hospitals to avoid seriously ill patients, resulting in access problems for those patients. Adequate risk adjustment is essential for ensuring an accurate determination of a hospital's relative rate of negative outcomes and for the establishment of fair P4O rewards and penalties. For example, the payment adjustment for inpatient complications implemented by the state of Maryland²¹ uses the All Patient Refined-DRGs (APR DRGs; 3M Information Systems, Inc.; Wallingford, Connecticut) assigned at the time of admission for risk adjustment, and the payment adjustment for readmission implemented by New York State Medicaid uses the APR DRGs assigned at discharge for risk adjustment.³⁹ Although APR DRGs provide a comprehensive measure of patient severity of illness,⁴⁴ it is still necessary to include additional adjustments for patient age and the presence of significant mental health problems to risk-adjust for all factors influencing a hospital's readmission rate.³ All-cause readmission rates without comprehensive risk adjustment, such as the readmission measure endorsed by the National Quality Form,⁴⁵ would not provide a reasonable basis for a readmissions-based P4O system.

8. P4O METHODOLOGIES MUST BE TRANSPARENT, CLINICALLY PRECISE, AND COMPREHENSIVE WITH A UNIFORM AND CONSISTENT STRUCTURE

In IPPS, the DRGs are much more than just a pricing mech-

anism. DRGs defined groups of clinically similar patients, creating a transparent and clinically precise language that was comprehensive (all clinical areas were covered) with a uniform and consistent structure that linked the clinical and financial aspects of care. The importance of the communication value of DRGs cannot be overemphasized. The language of DRGs provided hospital administrators and physicians with a meaningful basis for evaluating both the processes of care and the associated financial impact. The simple categorical nature of DRGs was critical to the creation of a powerful, transparent, and clinically precise communications tool.

Any P4O methodologies used to identify negative outcomes or to risk-adjust the rate of negative outcomes must be transparent and clinically precise and be applicable at the individual patient level. Just as the logic for assigning an individual patient to a DRG is readily available, the clinical logic for identifying negative outcomes or risk-adjusting the rate of negative outcomes must be open for examination and review. In addition, any P4O outcomes should be comprehensive and should address the specific quality area in a uniform and consistent manner. If multiple disjointed methods of identifying negative outcomes and risk-adjusting the rate of negative outcomes are used, hospitals will have great difficulty in addressing the quality issues because the complexity of using multiple methods will be confusing and difficult to interpret. For example, the payment adjustment for inpatient complications implemented by the state of Maryland²¹ identifies complications using the Potentially Preventable Complication (PPC) methodology⁸ (3M Information Systems, Inc.; Wallingford, Connecticut) and the APR DRGs for risk adjustment. Both PPCs and APR DRGs are comprehensive categorical clinical models with detailed definitions manuals to facilitate examination and review of the methodology.

Ultimately, a uniform and consistent approach to measuring individual outcomes is essential for hospitalwide interpretation and use of the outcomes information. Any P4O payment reform should motivate behavioral change that leads to improved outcomes, better quality, and lower costs. Hospitals would be better able to improve outcomes if the P4O methodologies were expressed in a clinically meaningful manner that communicates actionable information in a form and at a level of detail sufficient to achieve sustainable behavior changes.

DISCUSSION

Although the discussion of P4O has focused on the hospital, the core P4O principles apply to any care setting. The outcomes used in P4O can be readily expanded beyond inpatient

care to outpatient care (for example, complications following outpatient surgery, repeat emergency department visits). Furthermore, any health care event (for example, Cesarean section rate, admission for asthma) for which a higher-than-expected rate raises quality of care concerns represents an outcome that could be included in P4O.

The ACA requires the development of multiple initiatives to link quality and payment. The provision beginning in 2012 for reduced payment to hospitals with higher readmission rates requires an implementation that is consistent with the P4O principles. Although provisions in the ACA related to the Hospital Value-based Purchasing Program have initially been based on process of care measures, its long-term direction is moving toward greater emphasis on outcomes. The P4O principles can provide a long-term guide for a successful implementation of the sections of the ACA that seek to link quality and payment.

Although the outcomes included in P4O should be limited to outcomes over which a hospital has a reasonable degree of influence or control, it is not unreasonable to include outcomes in P4O that require hospitals to assume expanded responsibilities. For example, to decrease readmission rates, hospitals will need to be involved in postdischarge follow-up care to a greater extent (for example, by ensuring that prescriptions are filled and follow-up appointments are kept) than they have been traditionally. Indeed, the legislation enacting the payment adjustment for readmissions for New York Medicaid explicitly stated that the intent was to incentivize hospitals “to become more accountable to the individuals they are discharging.”²⁰ However, the challenges for hospitals to improve outcomes are significant. There is a growing, although still limited, body of research that defines specific processes and interventions that directly lead to better outcomes. Indeed, as noted previously, the evidence that hospitals that adhere to process criteria actually achieve better outcomes is at best inconsistent.⁵⁻⁷ At the same time, it is clear that payers and regulators will be implementing systems that will financially penalize hospitals for poor outcome performance and that consumers will demand better access to outcome performance data.

An ongoing concern regarding P4O measures is that they would discriminate against hospitals that care for poor and vulnerable patients. In addition to the well-known association between socioeconomic status and poor health⁴⁶⁻⁴⁸ and adverse health behaviors,⁴⁹ hospitals that care for the disadvantaged may be underfunded, making corrective interventions difficult to implement.⁵⁰⁻⁵² Additional risk adjustment accounting for patient socioeconomic status and hospital characteristics may

address this issue, but would, with the possible exception of using zip code as a surrogate, require additional data collection. Otherwise, specific ad hoc adjustments or outright exemptions for those hospitals that are at a particular disadvantage may be necessary.

The public reporting of outcome data, although not a P4O mechanism, nonetheless provides a financial motivation to improve outcomes because hospitals fear the loss of revenue resulting from the bad publicity accompanying a poor report. Although public reports clearly put pressure on hospitals to improve outcomes, they alone have not been shown to provide sufficient financial motivation for hospitals to make substantial investments in QI efforts.⁵³⁻⁵⁵ However, public reporting of outcome performance data would clearly complement and strengthen the financial incentives in any P4O payment reform. In particular, the availability of public reporting may encourage patients and physicians to use outcome performance data in selecting a hospital, thereby strengthening the incentive for hospital QI efforts.

There would be immediate financial savings from P4O payment reform as a result of the payment reductions for negative outcomes such as complications and readmissions. However, future savings from avoiding the negative outcome are potentially much greater than the savings from simply reducing the payment. It is worth noting that IPPS, which was implemented in a budget-neutral manner, did not guarantee savings during its first year but instead created the foundation for future savings by providing the incentive for hospitals to become more efficient. Subsequent savings resulted from changes in hospital behavior that occurred in response to the change in financial incentives.

If P4O is to be implemented on a large scale, it would have to primarily rely on data contained in discharge abstracts. As a result, P4O has the limitations inherent in any system that uses discharge abstract codes. The accuracy and completeness of coding can vary across hospitals and may vary from one diagnosis to another within a hospital,⁵⁶ compromising the accuracy of the measurement of P4O performance. Furthermore, any system that relies on diagnosis coding can be subject to systematic coding bias in response to the incentives inherent in the system.

Because outcomes such as readmissions and complications are relatively infrequent, it is possible that few hospitals will have a difference in outcome rates that is statistically significant. However, a study of readmission rates in Florida hospitals, for example, showed that 43% of the hospitals had a risk-adjusted readmission rate that was statistically significantly

higher or lower than the statewide readmission rate in two successive years.³ Similarly, a study of complication rates in California hospitals found that 47% of the hospitals had a risk-adjusted complication rate that was also statistically significantly higher or lower than the statewide complication rate in two successive years.⁸ Thus, the variability in risk-adjusted outcome rates across hospitals for these kinds of outcomes appears to be substantial enough to identify meaningful differences among hospitals.

The response to increasing health care costs will likely result in reduced payments to hospitals. The simplest and perhaps most politically expedient means of reducing hospital payments would be to impose uniform across-the-board cuts for all hospitals. This approach would spread the financial pain proportionately to all hospitals, either through actual reductions in payment rates or by constraining the annual inflation update factor. Such an approach, in which efficient, high-quality hospitals suffer the same financial penalty as inefficient, low-quality hospitals, is fundamentally unfair and unproductive. P4O can be used to redistribute existing payments among hospitals to reward those hospitals that are achieving better outcomes or to distribute mandated payment reductions to hospitals in a manner that minimizes the financial penalty to hospitals that are achieving better outcomes.

Conclusion

P4O represents a natural evolution of bundled payment mechanisms such as IPPS and holds the potential not only to reduce health care costs but also to improve patient outcomes—both important goals of the ACA. The P4O core principles represent a distillation of the lessons learned from the successful implementation of IPPS. Adherence to these principles can provide a foundation for practical and effective P4O payment system reforms that can increase the value of our health care expenditures. **J**

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