The PROMETHEUS Model:
Bringing Healthcare into the Next Decade

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I. INTRODUCTION

The United States’ current healthcare system has long been structured to emphasize the quantity of health care over the quality of health care.\(^1\) Such a focus of quantity is evident in the fee-for-service structure, where providers are paid a specified amount for each service provided.\(^2\) This structure gives doctors and other health providers’ incentive to order extra tests and procedures that may be unnecessary to improve the outcome of the patient.\(^3\) Thus, fee-for-service payments motivate healthcare providers to give more care, but not necessarily better, care.\(^4\) President Obama recently stated that the current structure “is a

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3 Id.

4 François de Brantes et al., Building a Bridge from Fragmentation to Accountability: The PROMETHEUS Payment Model, 361 NEW ENG. J. MED. 1033, 1033 (2009).
model that has taken the pursuit of medicine from a profession — a calling — to a
business.”

To break this trend of quantity-based care, several payment models have
emerged to encourage quality care. A pay-for-performance structure is
increasingly being used by healthcare providers, which improves quality by
basing providers’ payment incentives on their ability to reduce cost for the patient
while still providing quality care. This pay-for-performance model, however,
offers little compensation to doctors and physicians compared to the current fee-
for service system. As an alternative, the PROMETHEUS Payment model
establishes its own method by focusing first on the patient’s clinical needs.

PROMETHEUS stands for: Provider payment Reform for Outcomes Margins
Evidence Transparency Hassle-reduction Excellence Understandability and
Sustainability.

The PROMETHEUS method sets itself apart from current health care
models by focusing on scientific research and the resources required to treat a
condition to calculate the base cost to the patient. On top of the base rate, the
PROMETHEUS method individualizes the cost of care by factoring in the

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5 Doctors’, supra note 1.
6 Gosfield, supra note 2, at 145.
7 Id.
8 Id. at 146.
patient’s health and pre-existing conditions.\textsuperscript{11} The system is voluntary, and may be implemented across a variety of health care setups – from large integrated systems to small private physician groups.\textsuperscript{12} Additionally, the PROMETHEUS method recognizes that a new healthcare payment system can only succeed if disparate parties work together.\textsuperscript{13} The PROMETHEUS method is a payment system that is based on the adherence to guidelines and patient outcomes, which requires strong coordination among a care team, comprised of doctors, dietitians, pharmacists, specialty doctors, and other professional involved in the patients treatment.\textsuperscript{14}

This article will focus on the applicability of the PROMETHEUS method including: the structure of the PROMETHEUS method and how it works,\textsuperscript{15} the benefits of using the PROMETHEUS method,\textsuperscript{16} and whether the PROMETHEUS method can be feasibly implemented into our current healthcare system.\textsuperscript{17}

II. WHAT IS THE PROMETHEUS PAYMENT METHOD AND HOW DOES IT WORK?

The name, PROMETHEUS, speaks of the model’s core values and echoes what it stands for in the progress of healthcare.\textsuperscript{18} The PROMETHEUS Payment model rewards doctors and hospitals for providing high-quality care.\textsuperscript{19} However,
unlike many of the pay-for-performance models, the rewards are not contingent on delivering good outcomes, but rather on preventing negative outcomes.\textsuperscript{20}

In practice, the basic theory of the PROMETHEUS method is to pay the correct sum to the health care provider for the proper procedures and tests.\textsuperscript{21} The results of the tests and procedures are to be used in accordance with the best scientific research to treat the condition or illness, as outlined in a good clinical practice guideline (CPG).\textsuperscript{22} A panel of medical experts develop and establish an evidence-informed case rate (ECR) for a particular illness or condition,\textsuperscript{23} which is modeled from the CPG, taking into account all of the providers who will interact with the patient during the delivery of CPG-based care.\textsuperscript{24} ECRs are then adjusted for the severity of the individual’s condition and other factors.\textsuperscript{25} However, ECRs exist for only seventeen conditions where national clinical guidelines or expert opinions have already been established.\textsuperscript{26}

To calculate a patient’s ECR, the expert panel follows three steps.\textsuperscript{27} First, the expert panel alters the ECR price to replicate the patient’s current health.\textsuperscript{28} Second, they add an ECR negotiated fee schedule, establishing a payment plan for the patient to pay the provider.\textsuperscript{29} Third, they build in additional funds for

\textsuperscript{20}Id.


\textsuperscript{22}Id.

\textsuperscript{23}The Commonwealth Fund, supra note 19.

\textsuperscript{24}Id., supra note 9.

\textsuperscript{25}The Commonwealth Fund, supra note 19.

\textsuperscript{26}Id.

\textsuperscript{27}Id.

\textsuperscript{28}Id.

\textsuperscript{29}Id.
potentially avoidable complications on top of the patient’s ECR.\textsuperscript{30} At a specified
time, incentives are paid to healthcare providers based on whether mistakes
occurred and whether they followed good clinical protocol.\textsuperscript{31} A provider must
score high in both avoidable PACs and following good clinical protocol get the
full incentive;\textsuperscript{32} otherwise the remainder of the quality funds is withheld and
reserved as a bonus for outstanding medical performances by other providers.\textsuperscript{33}
Although the model seems complex, the underlying principle for hospitals and
providers is simple: to make more money by avoiding mistakes. The research
suggests that significantly higher margins will be realized for high-quality
providers under PROMETHEUS than under any other system.\textsuperscript{34}

III. WHY USE THE PROMETHEUS PAYMENT METHOD?

The main reason for using the PROMETHEUS method is to reduce the
cost to the patient without sacrificing quality. Potentially avoidable complications
(PACs) are common in the United States. For every dollar lost to PACs,
implementing the PROMETHEUS method could help save up to forty cents.\textsuperscript{35}
Additionally, PACs account for 22% of all private healthcare expenditures in the
United States and up to 80% of the costs for conditions that require intensive

\textsuperscript{30} Id. ("For example, a patient with chronic obstructive pulmonary disease might have a total
calculated ECR of $15,000, which includes a $2,000 allowance for potentially avoidable
complications. For doctors and hospitals that avoid making a mistake while treating that patient,
the $2,000 is pure profit. These incentives are withheld until the end of the year when claims and
care can be analyzed in aggregate.").
\textsuperscript{31} The Commonwealth Fund, supra note 19.
\textsuperscript{32} Id.
\textsuperscript{33} Gosfield, supra note 21, at 969.
\textsuperscript{34} The Commonwealth Fund, supra note 19.
management, such as congestive heart failure.\textsuperscript{36} Finally, research estimates that with the broad application of the PROMETHEUS model of bundled payments for ECRs, national healthcare spending could be reduced by 5.4\% between 2010 and 2019.\textsuperscript{37} Overall, the PROMETHEUS model could reduce the country's healthcare bill by more than $700 billion over ten years.\textsuperscript{38}

IV. WILL THE PROMETHEUS PAYMENT METHOD WORK IN PRACTICE?

The PROMETHEUS Payment method is a promising approach to fix the United States healthcare crisis, but the underlying issue is whether it can be implemented into our healthcare scheme. The Office of the Inspector General (OIG) and the Centers for Medicare & Medicaid Services (CMS) suggest that a healthcare plan must include quality measures, incentive payments, and patient notification and care to be effective and provide high quality care.\textsuperscript{39}

A. Quality Measures

According to the CMS and OIG, quality measures should be clearly and separately identified to provide high-quality care.\textsuperscript{40} The measure of quality of care using the PROMETHEUS model depends on avoiding PACs, and the PROMETHEUS method takes measures to reduce PACs and the costs associated with them.\textsuperscript{41} Doctors, patients, and other healthcare providers are aware of the

\begin{footnotesize}
\textsuperscript{36} Brantes, \textit{supra} note 4, at 1034.
\textsuperscript{37} Peter S. Hussey et al., \textit{Controlling U.S. Heath Care Spending - Separating Promising from Unpromising Approaches}, 361 NEW ENG. J. MED. 2109, 2110 (2009).
\textsuperscript{38} Brantes, \textit{supra} note 4, at 1034.
\textsuperscript{40} \textit{Id.}
\textsuperscript{41} Brantes, \textit{supra} note 4, at 1033.
\end{footnotesize}
PACs because they are identified on the ECR of each patient.\textsuperscript{42} Moreover, to better determine the accountability of PACs, the costs attributable to patient–related factors are separated from those attributable to the providers’ actions.\textsuperscript{43}

The CMS and OIG also point out that quality measures should be verifiable and sustained by medical evidence.\textsuperscript{44} The PACs used in the PROMETHEUS method are tracked and accounted for separately.\textsuperscript{45} Additionally, the ECR, which establishes a base rate for the treatment of each illness or condition, is also supported by medical evidence.\textsuperscript{46} An expert panel establishes the ERC, modeling it after the CPG, which is made in accordance with all scientific data to treat the condition or illness.\textsuperscript{47} This scientific approach is limited, however, because ECRs only exist for seventeen conditions.\textsuperscript{48}

Finally, the CMS and OIG conclude that quality measures should consider the patient’s race, ethnicity, and medical history.\textsuperscript{49} The PROMETHEUS method takes into account the patient’s population by establishing an individualized base for the ECRs.\textsuperscript{50} The PROMETHEUS method does this through evidence-based guidelines that include adjustments for each patient’s severity of disease and medical history.\textsuperscript{51} Although limited to seventeen conditions, the PROMETHEUS

\textsuperscript{42} The Commonwealth Fund, supra note 19.

\textsuperscript{43} Brantes, supra note 4, at 1034.

\textsuperscript{44} Johnson, supra note 39.

\textsuperscript{45} Brantes, supra note 4, at 1034.

\textsuperscript{46} The Commonwealth Fund, supra note 19.

\textsuperscript{47} Gosfield, supra note 21, at 969; The Commonwealth Fund, supra note 19.

\textsuperscript{48} The Commonwealth Fund, supra note 19.

\textsuperscript{49} Johnson, supra note 39.

\textsuperscript{50} François de Brantes, Pay for Performance and Beyond: A Recipe for Improving Healthcare, in The Quality Conundrum: Practical Approaches for Enhancing Patient Care 110, 112 (2006).

\textsuperscript{51} Id.
method is individualized to those practices with empirical research backing up their conclusions.52

B. Incentives Payments

The CMS and OIG also provide suggestions pertaining to incentives and payments for future healthcare plans.53 The CMS and OIG state that incentive payments should target national benchmarks and consider a hospital’s historical baseline data.54 The pricing of medical services using the PROMETHEUS method is packaged into ECRs for a particular illness or condition, and CPGs are factored into ERCs to establish the price of care for patients, establishing the benchmark for cost of care for a patient.55 The ECRs and CPGs, as explained in the section above, use the scientific data collected by an expert panel to establish the cost of the treatment for the illness or condition.56

While the research does not indicate whether a hospital’s historic baseline is factored into the pricing, the PROMETHEUS method is more patient-specific, since it takes into account the severity of an individual’s condition into the overall cost, and therefore, incentive payment.57 The PROMETHEUS method incorporates CMS and OIG’s guidelines of targeting national benchmarks by using researched data indicating the cost of care for an illness or condition. Additionally, the PROMETHEUS method goes a step beyond the recommendations by tailoring each incentive payment to the individual patient.

52 See GOSFIELD, supra note 9, at 8-13.
53 Johnson, supra note 39.
54 Id.
55 Gosfield, supra note 21, at 969; The Commonwealth Fund, supra note 19.
56 Id. The Commonwealth Fund, supra note 19.
57 Id.
Additionally, CMS and the OIG suggest that incentive payments should be based on fair market value and there should be thresholds where no payment exists.\textsuperscript{58} The PROMETHEUS method does not follow the recommendations of the CMS and OIG to use fair market value for payment.\textsuperscript{59} Instead, the PROMETHEUS method relies on empirical research to set the base price.\textsuperscript{60} However, practice groups that are paid for managing chronic conditions using the PROMETHEUS model have considerable opportunities to maximize the profits that come from avoiding costly hospitalizations.\textsuperscript{61} On the other hand, the PROMETHEUS method imposes a cap on the amount of payment a practitioner can receive.\textsuperscript{62} The maximum payment a practitioner can receive is the ECR plus the amount allocated to PACs, if all PACs are avoided.\textsuperscript{63} Therefore, if the ECR is $10,000, the PACs equal $2,000, and the practitioner has no cost associated with PACs, then the highest bonus that the practitioner could receive is the $2,000 of PACs, with an overall payment of $12,000.

C. Patient Care and Notification

Finally, the CMS and OIG support that patients should be notified of the payment method and the method should be offered to all available providers.\textsuperscript{64} Even if not already included in the setup of the model, providers notifying their patients of the use of the PROMETHEUS method would not alter the current setup and could be easily added to the PROMETHEUS method. Additionally, the

\textsuperscript{58} Johnson, supra note 39.
\textsuperscript{59} See Gosfield, supra note 9, at 8-13.
\textsuperscript{60} Id.
\textsuperscript{61} Brantes, supra note 4, at 1035.
\textsuperscript{62} The Commonwealth Fund, supra note 19.
\textsuperscript{63} Id.
\textsuperscript{64} Johnson, supra note 39.
PROMETHEUS method is designed to be implemented in a variety of different healthcare setups from large integrated delivery networks to individual practitioners.\textsuperscript{65} Since the PROMETHEUS method is designed to be implemented into numerous healthcare structures and can provide payment incentives for physician specialties, hospitals, and other healthcare providers,\textsuperscript{66} the PROMETHEUS model is available and appealing to all providers. The PROMETHEUS method reaches most of the standards set by the CMS and OIG; therefore, under the PROMETHEUS method, this payment model has the potential to be a successful healthcare model.

V. CONCLUSION

Pay-for-performance models are transitional at best and are only a step in the right direction from the “one size fits all” quality approach of most healthcare payments.\textsuperscript{67} National institutions have even recognized the need for a new payment system as a pivotal thrust to bring healthcare into the twenty-first century.\textsuperscript{68} Pilot projects, like the one tested in Rockford, Illinois, demonstrate the positive future of the PROMETHEUS model.\textsuperscript{69} Because the PROMETHEUS model was shown to be attractive with a low-risk start-up, patients, doctors, and other healthcare providers can see the benefit of the model. The model’s apparent conformity with the standards set by groups such as the CMS and OIG only further establishes the potential success of the PROMETHEUS model. At a minimum, the PROMETHEUS model suggests that it can effectively improve the

\begin{footnotesize}
\begin{enumerate}
\item Brantes, supra note 50, at 112.
\item Id.
\item Gosfield, supra note 21, at 968.
\item Id.
\item See The Commonwealth Fund, supra note 19.
\end{enumerate}
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United States’ current disassociated delivery system to a respected healthcare system in which teamwork and the drive for quality are the norm.\(^7^0\)

\(^{70}\) Brantes, *supra* note 4, at 1035.