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Commentary: The Relative Research Unit: An Approach to Measuring and Encouraging Clinician Participation in Research Activities

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Abstract

Recent nationwide initiatives to accelerate clinical and translational research, including comparative effectiveness research, increasingly will require clinician participation in research-related activities at the point-of-care, activities such as participant recruitment for clinical research studies and systematic data collection. A key element to the success of such initiatives that has not yet been adequately addressed is how to provide incentives to clinicians for the time and effort that such participation will require. Models to calculate the value of clinical care services are commonly used to compensate clinicians, and similar models have been proposed to calculate and compensate researchers' efforts. However, to the authors' knowledge, no such model has been proposed for calculating the value of research-related activities performed by non-investigator clinicians, be they in academic or community settings. In this commentary, the authors propose a new model for doing just that. They describe how such a relative research unit model could be used to provide both direct and indirect incentives for clinician participation in research activities. Direct incentives could include financial compensation, while indirect incentives could include credit towards promotion and tenure and towards the maintenance of specialty board certification. The authors discuss the principles behind this relative research unit approach as well as ethical, funding, and other considerations to fully developing and deploying such a model, across academic environments first and then more broadly across the health care community.

Substantial investments have been made in recent years to accelerate clinical research and to deliver more efficient and effective health care, not the least of which are those provisions included in the American Reinvestment and Recovery Act of 2009 and the Affordable Care Act of 2010. The clinical and translational research initiatives, including comparative effectiveness research (CER), that are a focus of these investments often benefit greatly from, and sometimes necessitate, clinician involvement to fully leverage clinical information

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and resources for research purposes. Examples of such clinician participation in research activities include systematically collecting data in the real world of clinical practice, generating research questions derived from practice, and recruiting patients for clinical studies. Additional ongoing investments and incentives designed to accelerate the adoption and meaningful use of interoperable electronic health records (EHRs) also anticipate that the infrastructure will soon exist to leverage everyday clinical activities for secondary purposes, such as research and health care quality improvement.¹ Despite those initiatives and the hope that clinicians will participate in such research-related activities at the point-of-care, the absence of an explicit incentives structure to encourage clinicians' involvement remains a major challenge that those in the field have not adequately addressed.

Incentives Are Needed

Participating to any degree in research activities is difficult to justify for non-researcher-clinicians who are faced with an increasingly challenging and time-constrained practice environment that makes additional activities seem counterproductive to patient care. The conflict appears particularly troublesome from the perspective of primary care clinicians who, in the face of prototypic 15-minute clinic visits, will presumably be the ones who contribute most heavily to the clinical research activities envisioned in the initiatives mentioned above. Even in the academic health center (AHC) environment, where research is a stated part of the institutional mission, incentives to encourage non-researcher-clinicians to engage in research activities are almost non-existent, and their absence has been cited as a reason for clinicians opting out of research-related activities.² Simply put, the busy clinician practicing in today's health care environment faces an opportunity cost to participating in research activities. That is, he or she, in participating in research-related activities, could face a loss of compensation associated with the time not spent on clinical activities.

Existing Compensation Models

Clinician compensation in the United States today relies most heavily on clinical productivity, which is often based on a relative value unit (RVU) calculation using the resource-based relative value scale or RBRVS. This scale in turn attempts to account for the complexity and time spent on a clinical task. Clinician-investigators, who conduct research as part of their defined responsibilities, are generally compensated to do so, and approaches for calculating academic-RVUs for such clinician-investigators' activities have been described previously.^{3,4} Similarly, approaches exist to calculate and compensate teaching productivity for clinician-educators via a relative teaching unit or RTU model.⁵ To our knowledge, however, a model to compensate non-researcher-clinicians for participating in clinical and translational research initiatives does not exist, yet is sorely needed. Indeed, without providing incentives for clinicians to participate in research activities, it is unlikely that they will do so in the numbers needed to fully realize the investments being made to advance medical science and health care delivery.

The Relative Research Unit

To remedy this situation, we propose developing and adopting a new method to measure non-researcher-clinicians' participation in research-related activities—the relative research unit (RRU). The key principle behind the RRU model is that compensation for research is based on the opportunity costs of time spent engaged in such activities as distinct from usual clinical or teaching activities. For instance, if the particular research activity involves discussing a clinical trial opportunity with a patient who might qualify as a participant, that activity should be duly documented and should yield RRU credit appropriate to the time involved and the level of complexity of the task. As another example, if systematically collecting certain patient data (e.g., disease activity, health-related quality of life, or clinical

risk-factor data) is necessary to support clinical research but would not otherwise take place during routine patient care, then such data collection should result in RRU credit. As with RVUs, RRU could then be converted to a monetary value, or RRU calculations could be used to drive non-monetary rewards, which are particularly relevant in the AHC environment, as we will discuss further below.

Funding Considerations

To implement an RRU model, we must first address its sources of funding. Funds for RRU-credited activities should, in principle, be derived from those who benefit from the research-related activities. Therefore, one obvious source of funding is the sponsors of research studies. In actuality, examples of sponsor-compensated research by non-investigator-clinicians do exist. For instance, study sponsors have compensated rheumatologists for their effort in systematically collecting additional data for research purposes on their patients with rheumatoid arthritis.⁶ Such targeted approaches, however, have been limited in scope and have not been widely adopted. Moreover, reliance on such funding sources could promote clinician compensation only for those research activities that fit the agendas of sponsors, rather than research activities that yield more generalizable results. Therefore, administrators will likely have to consider other funding sources to bring to fruition this widespread increase in research-related efforts.

Health care payers are another potential funding source, since the ultimate financial benefits of accelerated research (i.e., improvements in health) accrue at least in part to them. To wit, the Affordable Care Act provides a useful model for payers funding research, in that it stipulates that all payers shall share the brunt of funding CER directed by the new Patient-Centered Outcomes Research Institute.

Ultimately, of course, all of us are the beneficiaries of research endeavors, so leaders must also consider public funding of RRU-credited initiatives. The Department of Health and Human Services oversees various agencies that logically could fund such programs. The National Institutes of Health, the Agency for Healthcare Research and Quality, and the Centers for Disease Control and Prevention, for instance, have as their missions advancing health sciences and improving public health. Another likely candidate is the Centers for Medicare & Medicaid Services, as it certainly has an interest in advancing health care and is already engaged in the related endeavor of providing financial incentives to clinicians for adopting and using in a meaningful way health information technology to improve health care. Of course, the new Patient-Centered Outcomes Research Institute is another candidate, given that RRU-credited activities are fully congruent with outcomes research and CER. Given ongoing fiscal challenges faced by all federal agencies, though, garnering support for such activities might initially seem unrealistic. The critical nature of RRU-credited activities for public health, however, makes it essential that leaders not dismiss these considerations out of hand.

Ethical and Legal Considerations

In addition to funding considerations, ethical and legal issues are paramount in any discussion of compensating clinicians for research activities. Indeed, such issues are among the chief reasons why the practice is not already a routine part of our health care system. For instance, although inadequate participant recruitment remains a major challenge to the timely and effective completion of clinical trials that could lead to health care improvements, the community recognizes that direct “finder’s fee” payments to clinicians for referring patients to clinical trials are ethically problematic, due to the potential conflicts of interest and the resultant coercion or misrepresentation of the research opportunity to patients. Such conflicts are particularly concerning when compensation rates are much

greater than the true opportunity costs.⁷ Therefore, we need an approach that balances the competing need to provide incentives to clinicians for their involvement in a range of research activities with the need to proceed ethically to avoid potential harm to patients.

With an RRU model, we envision just such a balance. For instance, in the case of participant recruitment, rather than compensate clinicians for successfully enrolling a patient in a research study, we propose compensating them for the additional time and effort spent considering and offering research opportunities to potential participants, whether or not the patient decides to participate. Furthermore, compensation should roughly equal what the clinician could have earned had his or her effort been spent instead on a clinical activity of comparable time and complexity—no more, no less. That is, clinicians should be compensated at an amount equal to the opportunity cost of the research participation activity, as lower compensation levels would be inadequate and higher levels would present conflicts of interest.

Additional Considerations in Adopting an RRU Model

It is perhaps easiest to envision implementing an RRU model first at AHCs, given their expressed research missions and research infrastructure. For one, such settings are home to clinicians who may, by virtue of their chosen practice environment, be more inclined to perform and document research-related activities. In addition, one could anticipate a willingness among the leadership of AHCs, particularly those with integrated clinical and academic environments, to adopt an RRU model directly tying compensation to clinicians' performance of research-related activities that would also benefit the larger academic enterprise. Besides direct financial incentives, academic environments could provide indirect incentives to clinician-faculty who accrue RRU credits. For instance, promotion and tenure committees could use an RRU system as the objective measure for crediting non-researcher-clinicians' research-related activities toward their expected "scholarly contributions" criteria for promotion and tenure.

Importantly, while such an approach could be expected to take hold first at AHCs, we envision that the proposed RRU system would ultimately apply to all clinicians, not just those in academics. Granted, at present, the necessary infrastructure and mechanisms to compensate clinicians for research activities in community settings are limited. Furthermore, even if compensation is commensurate with the effort expended on research-related activities, busy clinicians simply may not have time to squeeze one more thing into the prototypical 15-minute patient visit.

While financial compensation for all efforts, including those that are research-related, will clearly remain a major incentive in all settings, there are also indirect benefits for clinicians who participate in research activities, be they in academic or non-academic environments. For instance, specialty certification boards might allow clinicians to put their credits toward the maintenance of certifications and licenses. The American Board of Internal Medicine, for example, currently requires 100 self-evaluation points for recertification, which can be earned by demonstrating clinical knowledge, practice improvement, or both. Perhaps a certain number of RRUs could count towards this recertification. Furthermore, the systematic data collection required to drive RRU-calculations could also be leveraged to yield other benefits, such as satisfying reporting requirements to payers, regulators, or accrediting bodies (e.g., the Centers for Medicare & Medicaid Services' Physician Quality Reporting Initiative).

As for implementing an RRU-based incentive system within and across health care systems, the preceding discussion provides a framework and starting point. As was the case when the RVU model was initially proposed, the full development and deployment of an RRU-based

incentives system will require groundwork. Methods to measure the performance of RRU-related activities will have to be more fully developed and validated, as will the relative time and effort factors essential to calculating RRUs. Then, mechanisms for translating RRUs into fair and sufficient compensation or other incentives will have to be put in place and monitored for effectiveness, particularly given that clinicians from different specialties will likely experience different opportunity costs for the same research-activity effort. The lessons learned over the past 25 years from developing, refining, and using current RVU approaches for clinician compensation should provide a framework and allow for the repurposing of some existing resources and infrastructure to implement an RRU-based compensation and incentives model.

In addition to fully developing an RRU-based incentives system and studying its impacts, efforts to develop methods that minimize the time and effort that clinicians need to engage in research must continue. Some methods, such as using EHRs to alert clinicians at the point-of-care that their patients might be eligible for a particular clinical trial, have been demonstrated to require as little as one minute of a visit.⁸ Other examples include incorporating standardized data collection into routine practice for both clinical documentation and secondary uses such as research. Indeed, considering such activities when deploying health information systems will be critical to facilitating clinician participation in research.

In conclusion, clinician participation in research activities is essential to achieving the goals that have been set for our health care and research enterprises and that are a focus of ongoing initiatives and investments.¹ Even as EHRs and other infrastructure elements with the potential to accelerate research are put into place, and indeed perhaps because of the need to realize this potential, we can no longer afford to ignore the difficult challenge of encouraging clinician participation in research activities. By following the principles and strategies set forth above to adopt an RRU model, health care systems in general and AHCs in particular could begin to measure and provide incentives for clinician participation in research activities, thereby maximizing ongoing investments to drive health care improvements and research advances. This approach should therefore be considered by those responsible for our current health care and research enterprises as well as by those working to implement reforms to our health care system.

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