

Testimony to Meaningful Use Public Hearing: Transitions and Care Coordination
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I want to thank you for inviting me to speak at this session. By way of introduction, I'm a hospitalist, that is, an internist who cares for hospitalized medical patients at Brigham and Women's Hospital in Boston. I am also co-chair of a committee to improve transitions in care, especially discharges, across all 5 acute care hospitals in the Partners Healthcare System. Lastly, I'm a researcher who designs and studies interventions to improve patient safety during transitions, often using health information technology.

First, I want to stress that I believe the Meaningful Use Stage 1 specifications, once implemented widely, will greatly improve patient safety during transitions in care. In all 3 of my roles, I have seen first-hand how inadequate transfer of information across health care settings leads to avoidable injury and unnecessary health care utilization, including needless readmissions to the hospital. The Meaningful Use requirements will put in place a much-needed infrastructure to start addressing these problems.

I will limit my comments to 3 of the specified functionalities related to transitions: medication reconciliation, exchange of key clinical information, and patient copy of health information and discharge instructions.

Medication reconciliation is an absolute requirement to help ensure medication safety during transitions in care. For example, in a two-site randomized controlled trial, we previously showed that an electronic medication reconciliation application led to a 28% reduction in serious medication errors. I was glad to see that medication reconciliation was included in the Meaningful Use Stage 1 requirements, although disappointed that it is only a Menu option. As it currently stands, the only requirement for medication reconciliation applications in these specifications is that they enable a user to electronically compare two or more medication lists. Based on my experience, a fully functioning medication reconciliation application really has 4 functionalities: importing medication data from other sources, displaying and comparing different medication lists, ordering medications, and documenting that information. I provide more details in my written testimony, but our studies have shown that most serious errors in this process are due to missing medication information; therefore systems need to pull data from inpatient and outpatient EHRs and also from community pharmacy prescription fill data. Comparisons should be displayed in such a way that they make differences in these various data sources obvious and facilitate the construction of an accurate preadmission medication list and coherent sets of orders at admission and discharge. The third functionality is ordering. For example, in our system at Partners, once the preadmission medication list is constructed, the determination of what to do with each of those medications creates an admission order set. That improvement alone led to a further 69% reduction in serious medication errors. Lastly, the application needs to document the preadmission medication list and the discharge medication list and display clearly to both the patient and his/her providers exactly how the two lists are different from each other. Otherwise we know that even 3 days after discharge, 30% of patients are confused about what medications they are supposed to be taking. I hope that in Stage 2, when medication reconciliation becomes a core requirement, that some or all of these 4 functions be required for Meaningful Use or possibly for EHR certification.

Regarding exchange of clinical information, again this is absolutely essential. We know from prior research that discharge documentation is often inadequate – direct access to key clinical information would greatly improve the situation. From our work at Partners, we also know that in up to 20% of cases, post-acute care facilities like rehabilitation hospitals do not receive in a timely manner the paperwork we send them by other means. I have two specific recommendations for Stage 2. The first is that more guidance be given for what should be included in a discharge summary and in discharge instructions. We know from our work at Partners that HIT can guarantee that certain information be included in discharge summaries and discharge instructions, either by importing the information automatically from other data sources or by actively soliciting the information from the provider writing the orders. For example, at BWH, such modifications to our HIT system

increased the defect-free rate of our discharge summaries from 53% to 82% essentially overnight. The specifications of what to include in discharge summaries and discharge instructions could come from the Care Transitions Performance Measurement Set, a consensus guideline from the American Board of Internal Medicine Foundation, the American College of Physicians, the Society of Hospital Medicine, and the Physician Consortium for Process Improvement. The second recommendation is that for Stage 2 measures, we not only look at the ability of a hospital to provide a summary of care in most cases, but confirm the receipt of that information by the next provider of care.

Lastly, while I agree that transmission of coded patient information is a great first step, to really improve transitions in care, what we need is a single source of truth, that is, one medical record, accessible to providers with permission, and owned by the patient. Otherwise, we perpetuate electronically what we currently have on paper: multiple medical records, each one providing only part of the story. Electronic transfer in theory allows any one provider to try to fill in the gaps, but this effort is only as good as the diligence of the provider, his/her knowledge of what other data sources are actually available, and the ability to reconcile all that information. Much safer is a single medical record that is iteratively refined and updated over time. Any provider would be able to download the current version to their EHR, update it, and then essentially sync it at the end of the episode of care. This also solves the problem of giving patients an electronic copy of their health information, a third Meaningful Use requirement related to transitions. Patients could always have access to their information and update it with the help of a provider. Again, research by our group has shown that allowing patients to access and update their medication list (with changes vetted by their provider) decreased the proportion of errors in the list with potential for severe harm from 8% to 3%. In some countries in the developing world, patients bring their chart to every office visit. While at first this may sound arcane, it actually solves several problems we have yet to solve: there is one source of truth, there is health information exchange, and it is clear that patients own and are responsible for their medical information. We should do at least as well.

Again, thank you for your attention and for allowing me to speak with you today. This work has great potential to improve patient safety during transitions in care.