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United States Senate

WASHINGTON, DC 20510-2309

May 7, 2012

The Honorable Marilyn B. Tavenner
Acting Administrator
Centers for Medicare & Medicaid Services
7500 Security Boulevard
Baltimore, MD 21244

Dear Administrator Tavenner:

In 2009, Congress passed the HITECH act authorizing incentive payments to eligible professionals and hospitals that adopt and use electronic health records. My colleagues didn't pass this legislation just to endorse technology for technology's sake; rather, they understood the enormous potential of this technology to improve health, lower costs, and save lives. That potential is captured by the legislation's requirement that the incentives reward the *meaningful use* of health information technology (IT)—the law recognized that health IT is only as powerful as it is well deployed.

The Department of Health and Human Services has made great strides in defining what it means to be a *meaningful user* of health IT, and these regulations focus on using health IT to improve health outcomes and to keep patients safe. I write to highlight a quality intervention at the Hennepin County Medical Center and the Mayo Clinic, both in Minnesota, that has benefited patients by dramatically reducing medication errors upon discharge from a hospital. I believe the Meaningful Use regulations provide a unique opportunity to deploy nationwide the lessons learned in Minnesota and similar interventions.

Hospital Discharge is a Particularly Dangerous Care Setting

The Institute of Medicine estimates that there are at least 1.5 million *preventable* adverse drug events, or injuries due to medication errors, in the United States each year. Preventable errors cost a staggering $3.5 billion in extra hospital costs a year.[1] In Minnesota, medication errors were the second leading cause of patient harm resulting in serious injury or death (the first leading cause was falls).[2]

Medication errors occur most frequently when patients are admitted, discharged, or transferred to or from a care setting.[3] The Institute of Medicine has reported that discharge from a hospital is especially dangerous because, in this context, discrepancies in medications are more common and raise the risk of medication errors. For example, upon discharge, providers may

[1] Committee on Identifying and Preventing Medication Errors, Philip Aspden, Julie Wolcott, J. Lyle Bootman, Linda R. Cronenwett, Editors. *Preventing Medication Errors.* Washington, D.C. : Institute of Medicine of the National Academies, 2007.
[2] Minnesota Department of Health. "Adverse Health Events In Minnesota." 2011.
[3] Committee on Identifying and Preventing Medication Errors, 2007

neglect to re-prescribe medications that were temporarily suspended during hospitalization; multiple providers in and out of the hospital may accidentally prescribe different medications for the same condition; or providers may prescribe medications that interact dangerously with medications the patient is already taking.[4] An effective intervention that reduces medication errors at discharge therefore has the potential to improve health, lower costs, and save lives.

Medication Reconciliation by Pharmacists Can Reduce Medication Errors at Discharge

In Minnesota, the Hennepin County Medical Center implemented such an intervention by having pharmacists check discharge orders before patients left the hospital. Hennepin examined the experiences of 37 elderly patients, many of whom with multiple chronic conditions, discharged from the hospital to nursing homes over three months in 2008 and 2009; Hennepin discovered that a shocking 92 percent of cases contained a medication error such as a wrong dose, a duplication, or an omitted medication. Nearly a third of these errors were identified as "likely harmful." Hennepin first implemented a system to use its electronic health records to perform medication reconciliation upon discharge, reducing the error rate to 70 percent. They then assigned pharmacists to review the medication orders upon discharge. Nine months after including pharmacists in medication reconciliation upon discharge, the hospital reported that the medication error rate plummeted to "essentially 0 percent" and that the 30-day readmission rate was reduced by half. It cost the hospital an additional $112,000 to include pharmacists in medication reconciliation upon discharge, and the intervention saved Medicare an estimated $587,000 in medical expenses through its reduced readmissions.

The Mayo Clinic in Rochester, Minnesota implemented a similar pilot program in medication reconciliation in the academic family medicine hospital service. During the program, the Mayo Clinic found that potentially dangerous medication discrepancies occurred more commonly during discharge than during admission. The multi-disciplinary medication reconciliation pilot program found pharmacists to be an "outstanding resource" for reducing the number and severity of medication errors over the course of the pilot. As a result of these findings, the Mayo Clinic empowered pharmacists to work with prescribers to edit patient medication lists in the electronic hospital summary.[5] Since that time, Mayo has expanded the role of pharmacists in coordinating with the discharge team and updated its electronic medical records to improve medication reconciliation upon discharge.

Quality experts recognize the strong evidence for including pharmacists in medication reconciliation at hospital discharge. In 2011, the Agency for Healthcare Research and Quality called such interventions "promising," citing research linking pharmacist-led medication reconciliation with improved clinical outcomes and reductions in actual and potential medication errors.[6] The National Quality Forum recognized the value of including pharmacists in preventing medication errors in its 2005 consensus report, *Safe Practices for Better Healthcare*. The

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[4] Ibid.

[5] Prathibha Varkey, Julie Cunningham, John O'meara, Robert Bonacci, Nima Desai, and Robert Sheeler. "Multidisciplinary approach to inpatient medication reconciliation in an academic setting." *American Journal of Health-System Pharmacies*, 2007: 850-854.

[6] Agency for Healthcare Research and Quality, 2011. http://psnet.ahrq.gov/primer.aspx?primerID=1 (accessed April 10, 2012).

National Quality Forum recommends that, "Pharmacists should actively participate in the medication-use process, including at a minimum, being available for consultation with prescribers on medication ordering."

Meaningful Use is a Unique Opportunity to Incentivize Reconciliation by Pharmacists

The Meaningful Use program is a unique opportunity to incentivize quality interventions proven to help patients such as pharmacist-supported medication reconciliation upon discharge. In fact, the proposed rule for Stage 2 already recognizes that (1) medication reconciliation can reduce medication errors, (2) discharge from a hospital is an important setting for a quality intervention, and (3) quality intervention at hospital discharge should include targeting medication errors. Each of these three proposed measures—medication reconciliation upon admission, summary of care record upon transfer, and electronic prescribing of hospital discharge medication orders—presents an opportunity to encourage pharmacist-supported medication reconciliation at hospital discharge.

While including pharmacists in medication reconciliation at discharge to prevent medical errors is good for patients, the financial incentives of our traditional fee-for-service healthcare model actually discourage hospitals from using this intervention nationwide. When the Hennepin County Medical Center reduced readmissions by half—an undeniably good outcome for its patients—even though the intervention reduced costs for Medicare, the hospital lost revenue until Medicare stopped paying for related readmissions.

For other quality interventions, the Meaningful Use program seeks to counterbalance our healthcare system's distorted incentives by rewarding eligible hospitals that use health IT to implement strategies demonstrated to improve health and save lives. For example, to obtain Meaningful Use Stage 1 incentive payments, an eligible hospital or critical access hospital must, in addition to adopting an electronic health record that is able to perform 15 "core" functions, demonstrate that it has implemented five objectives from a menu set that includes evidence-based interventions such as identifying and providing patient-specific education resources, submitting electronic data to an immunization registry, and checking a drug formulary. The Stage 2 Meaningful Use proposed rule could be strengthened by supporting the proven quality intervention of including pharmacists in medication reconciliation in the following ways:

(1) **Medication Reconciliation Upon Admission.** The proposed Stage 2 rule recognizes that medication reconciliation can reduce medication errors; the rule would require eligible hospitals to demonstrate that they "perform medication reconciliation 65% of the time when a patient is ***admitted*** following a transition of care" [emphasis added]. The rule notes that ideally, medication reconciliation would be performed at "all relevant encounters," but holds that "determining which encounters are relevant beyond ***transitions of care*** is too subjective to be included in the measure" [emphasis added]. However, hospital discharge *is* a transition of care, and, as discussed above, poses elevated risks of medication errors. If a medication error exists at the time of discharge, even if the patient sees his or her primary care provider after hospital discharge, and even if that provider performs medication reconciliation upon admission, that encounter might not occur quickly enough to prevent the patient from

suffering harm as a result of the medication error. Based on the evidence from Minnesota, there is a strong case for requiring eligible hospitals and critical access hospitals to perform medication reconciliation upon discharge in addition to upon admission and to include pharmacists in that medication reconciliation process.

(2) **Summary of Care Record Upon Transition.** The proposed rule also recognizes that hospital discharge is an important setting for a quality intervention and requires the quality intervention that eligible hospitals and critical access hospitals provide a "summary of care record for more than 65 percent of transitions of care and referrals." As many hospital discharges involve a transition of care to a primary care provider, eligible hospitals and critical access hospitals would already be collecting information about the patient's medications at the time of hospital discharge, but are not currently required to check the summary of care record for medication errors. Requiring medication reconciliation upon discharge would not additionally disrupt workflow at hospital discharge when a summary of care record is already being assembled.

(3) **Electronic Prescribing of Hospital Discharge Medication.** Finally, the proposed rule identifies targeting medication errors upon hospital discharge as an important quality intervention with the new requirement that "more than 10 percent of hospital discharge medication orders for permissible prescriptions (for new or changed prescriptions)" be electronically prescribed. The rule recognizes the power of e-prescribing to reduce medication errors, but even more medication errors can be identified and prevented if the hospital performs medication reconciliation before e-prescribing new or changed prescriptions upon discharge. E-prescribing also presents an opportunity to include pharmacists electronically when an in-hospital pharmacist is unavailable to assist in medication reconciliation, and I encourage the Office of the National Coordinator of Health IT to certify e-prescribing technology that allows the pharmacist to communicate back with the hospital to correct medication errors in real-time. Such technology may help smaller hospitals and critical access hospitals implement this quality intervention without having to hire additional staff.

Given the strong evidence from two Minnesota healthcare leaders of the life-saving value of performing medication reconciliation upon discharge with the help of pharmacists, I want to encourage your agency to think creatively about other ways to use the Meaningful Use incentive program to reduce medication errors and keep patients safe and healthy. Please don't hesitate to contact me or the researchers involved in the Minnesota-based pilot programs for further information. Thank you for your consideration.

Sincerely,

Al Franken
US Senator

cc: Dr. Farzad Mostashari, M.D., Sc.M.
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