**Problem:** There is inadequate oversight and management of patient safety incidents related to use of electronic health records (EHRs). Efforts to improve management of EHR-related patient safety risks at local and statewide levels have been ineffective.

**Resolution:** *We resolve that AMA work with Congress to create a National Health IT Safety Center that can implement an effective EHR safety program designed to reduce EHR-related patient safety risks*. Within this concept EHR vendors could be required to report patient safety incidents and near-misses to the Health IT Safety Center similar to how transportation safety incidents must be reported to the National Transportation Safety Board (NTSB). The Health IT Safety Center could collect, aggregate and analyze reported data. It could have power to investigate incidents involving patient harm and require EHR vendors to make appropriate changes. It could monitor near-misses to identify trends and risks. It could coordinate with other agencies to develop and broadly disseminate educational information and tools that mitigate identified patient safety risks related to technology use.

**Rationale:** The aggressive timeline imposed by the Meaningful Use (MU) program has stimulated an unprecedented rate of EHR implementations across the country. In the past 10 years the prevalence of EHR use by physician practices in Texas has exponentially increased to 70% according to surveys by the Texas Medical Association (TMA). The MU program has also required vendors to make changes to their EHR products at such a rapid pace that there has not been time to align EHR functionalities with efficient physician workflows.[1,2] Furthermore, physicians are assuming a higher-level of accountability for computer programs, networks and infrastructures that are increasingly used as tools to generate patient care actions and facilitate medical decisions[3,4]. The increasing scope and complexity of these EHR risks, combined with the unprecedented rate of EHR adoption and technology changes, has resulted in a hazardous environment for patient safety.[5,6] Poor usability of EHRs and lack of interoperability between EHR systems are patient safety risks that physicians commonly encounter. [7]

Incidents related to EHR use that result in patient harm or near-misses are inadequately managed today. For example, Dr. Matt Murray, Chairman of the TMA ad hoc Health IT Committee, describes a situation where instructions for a child's insulin dosing were correctly entered into the EHR discharge instructions, but when the mother received the printed instructions, there was a decimal point error resulting in a 10-times dosing error. This error was fortunately noticed by the nurse and corrected manually. He reported this near-miss to the EHR vendor and they corrected the technical problem. However, when he asked the vendor representative whether or not this problem was being corrected with other physician clients across the country, they informed him that no other client had reported such a problem.

This is analogous to a situation where an airbag explodes and sends shrapnel into your face. You might ask the automaker whether this is a problem with their other vehicles. They might tell you that they are not aware of others having the same problem. However, in the transportation industry they are required to report safety incidents and near-misses. These reports are collected, aggregated and analyzed by the NTSB. If the NTSB notices a trend in airbag-induced shrapnel injuries, they

will initiate an investigation.  When they discover that the problem is with a specific airbag that is used across multiple types of automobiles, not just the type you purchased in your own state, they will help ensure the risk is appropriately managed across the industry.

The insulin dosing error described above is one of many different types of risks encountered by one individual physician.  When extrapolated to the experiences of all physicians, the prevalence and variety of EHR-related patient safety risks appears to be vast and are subjects of ongoing studies[6,7,8].  But unlike the safety of interstate commerce produced by the auto industry which is overseen by the NTSB, the safety of interstate commerce produced by EHR vendors has no cohesive oversight mechanism.

Patient safety risks related to EHRs are best be managed through a shared accountability between clinicians and EHR vendors, but shared accountability does not exist today.  Creation of a National Health IT Safety Center, based on the concept described in more detail by Singh, et. al.[6], would establish a mechanism by which vendors are held accountable.  This concept also fits within the "culture of safety" CMS proposed to cultivate in their 2015 task force publication, "Health IT Safety Center Roadmap"[9].

**Summary:**  The EHR patient safety environment is increasingly more hazardous due to increased adoption of EHRs, rapid technology changes imposed by the MU program and inadequate oversight of identified risks.  Local and statewide efforts to address oversight issues are insufficient because EHRs are sold across state lines.  Therefore, we recommend Congress create a National Health IT Safety Center that could require EHR vendors to report patient safety incidents and near-misses.

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