Importance of electronic medical record-facilitated pathways to optimize care for vascular disease management

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It is clear that defining specific pathways of patient management for medical conditions based on evidence-based guidelines results in improved care and reduction in variability of care. Bitner and the group at the University of Pittsburgh Medical Center have provided evidence supporting this in the treatment of patients with chronic venous leg ulcers (VLUs). By employing standardized procedures to document VLUs and to ensure "best care practices," the authors improved their healing rates significantly and remarkably were able to increase the rate of smoking cessation.[1] They indicated that they believe the establishment of a specific wound electronic medical record (EMR) was not needed to institute evidence-based care but to ensure consistent employment of multidisciplinary management and to accurately identify patients who fell off of the defined treatment pathway.

In a busy wound clinic, the tendency of the clinician is to evaluate the patient and wound, and if the wound appears to be reasonably healthy, with no problems, the clinician will continue current management. However, this often leads to slow healing as wounds that do not heal by 40% to 50% within 4 weeks of treatment are unlikely to completely heal within 12 weeks using the same treatment plan. It is important for the wound EMR to facilitate accurate measurement and to flag patients who are not meeting improvement goals to remind the physician to re-evaluate the patient and to consider additional diagnostic testing, referral to other members of the multidisciplinary care team, or alternative treatment methods.

The real question is why the authors needed to labor to produce their own wound module within their EMR. Chronic wounds are a common medical problem affecting millions of patients in the United States and worldwide. Care is typically performed at outpatient hospital-based wound centers, of which there are at least 1000 in the United States at this time. Multiple electronic wound documentation systems have been developed specifically to facilitate the documentation and treatment of chronic wounds. Several have been employed cohesively within groups of wound centers to allow coordinated data measurement facilitating benchmarking and care improvement. Unfortunately, hospital system-wide EMRs typically do not integrate with wound-specific EMRs as well as with many other disease-specific EMRs. This led to a major step backward in care at some wound programs as clinicians struggled to document and to manage wounds within a hospital-wide EMR that did not support basic wound documentation and tracking functions.

Efforts such as the one led by the authors are critical to improve the functionality of system-wide EMRs for the management of patients with chronic wounds. It is hoped that the wound module developed by the authors can be shared with other hospitals using the same EMR so that each hospital does not need to develop its own module. The potential for large numbers of wound centers to share data on the management of VLUs to benchmark and to support best practices will be greatly facilitated if they are able to share the same wound EMR module. The outstanding contributions of the Vascular Quality Initiative in improving care of patients undergoing vascular procedures is well known. If we are to achieve similar improvement in the quality of care in vascular diseases that are often not managed procedurally, we must work within our EMRs to develop disease-specific documentation systems that can be duplicated at sites across the country. The group at the University of Pittsburgh Medical Center has taken the time to do this for VLUs. Will our EMR vendors allow us access to this module and will our individual hospital EMR committees pay for it? We should demand that they do so to facilitate better care for our patients.

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