Medical Xpress

Hospital penalties based on total number of blood clots may be unfairly imposed

July 29 2015

Johns Hopkins researchers say their review of 128 medical case histories suggests that financial penalties imposed on Maryland hospitals based solely on the total number of patients who suffer blood clots in the lung or leg fail to account for clots that occur despite the consistent and proper use of the best preventive therapies.

"We have a big problem with current pay-for-performance systems based on 'numbers-only' total counts of clots, because even when hospitals do everything they can to prevent venous thromboembolism events, they are still being dinged for patients who develop these clots," says Elliott R. Haut, M.D., Ph.D., an associate professor of surgery at the Johns Hopkins University School of Medicine.

"Our study of patients just at The Johns Hopkins Hospital identifies a need to dramatically re-evaluate the venous thromboembolism outcome and process measures," Haut says. "Nearly half of the venous thromboembolism events identified by the state program in the records we reviewed were not truly preventable, because patients received best practice prevention and still developed blood clots."

Haut, who is also a faculty member at the Johns Hopkins Armstrong Institute for Patient Safety and Quality, adds that if their findings are true across other hospitals in Maryland and the nation for venous thromboembolism (VTE) and similar events, "millions of dollars may be at risk inappropriately for hospitals."

In a research letter describing their findings that was published online July 29 in the journal *JAMA Surgery*, Haut and his colleagues note that state and federal government regulatory agencies, along with health insurers, including Medicare, are increasingly tracking the number of patients who develop blood clots and imposing financial penalties using pay-for-performance policies designed to improve care and patient safety.

But their records review shows that even with the use of blood thinners and other best practices, some patients will still develop clots. And they argue that a better measure would be to not only look at total numbers, but also to track whether patients at risk for clots are appropriately prescribed and given clot-preventing medications at the right time.

Maryland and most other programs look solely at the total number of VTE events without delving further into whether or not patients were given preventive medication appropriately, says Haut, lead writer of the research study.

For the study, Haut and his team reviewed case records for 128 patients treated between July 2010 and June 2011 at The Johns Hopkins Hospital, and who developed hospital-acquired VTE. All 128 were flagged by the Maryland Hospital Acquired Conditions (MHAC) pay-for-performance program. The Johns Hopkins researchers looked for evidence that all of the clots could have been prevented.

Thirty-six patients (28 percent) had nonpreventable, catheter-related upper extremity clots (called deep vein thrombosis), leaving 92 patients (72 percent) with clots that were potentially preventable with medicine, they say. Of those, 45 had a clot in the leg, 43 had clot in the lungs and four had both types of clots.

Seventy-nine (86 percent) of the 92 patients were prescribed optimal clot-

preventing medications, yet only 43 (47 percent) received "defect-free care," researchers found. Of the 49 patients (53 percent) who received suboptimal care, 13 (27 percent) were not prescribed risk-appropriate clot-preventing drugs, and 36 (73 percent) missed at least one dose of appropriately prescribed medication.

Haut says that a team of physicians, nurses, quality care researchers and pharmacists at Johns Hopkins has been studying VTE prevention for the past decade. Team members have implemented programs to monitor patients in need of clot-preventing medicines through the hospital's electronic health record system, and they conducted special trainings for nurses and patients to stress the importance of taking every dose of prescribed medication.

"We know we're not going to get the VTE rate to zero, but my goal is to have every single one of these events—when they happen—occur when the patient receives best-practice, defect-free care," Haut says.

The current VTE care goal, set by agencies like the Joint Commission and the Centers for Medicare and Medicaid Services, is that one dose of clot-preventing medication is given to patients within the first day of hospitalization, Haut says, which is not enough: "To reduce preventable harm, policymakers need to re-evaluate how they penalize hospitals and improve the measures they use to assess VTE prevention performance. In addition, clinicians need to ensure that patients receive all prescribed preventive therapies."

Provided by Johns Hopkins University School of Medicine