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Decision-support tool tied to increased outpatient management of PE

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NEW YORK (Reuters) – A peer champion-led decision support intervention to increase outpatient management of pulmonary embolism (PE) was sustainable 4 years after implementation, a cohort analysis shows.

The researchers suggest that their model could improve sustainability of practice change for other conditions and warrants further study.

“We had expected the rates of home management to have increased over the last few years as physicians became more comfortable with this practice,” Dr. David Vinson of Kaiser Permanente in Oakland, California told Reuters Health by email. “Even so, we were surprised at the magnitude of improvement.”

As [reported <https://bit.ly/3LSBYIC>](https://bit.ly/3LSBYIC) in JAMA Network Open, the study was conducted in emergency departments at 21 U.S. community hospitals that had previously participated in the original decision-support intervention trial 4 years earlier: 10 were intervention sites, 11 were controls.

In that trial, decision support with champion promotion resulted in significantly higher outpatient management at intervention sites, compared with controls. Participating sites were given access to a modified decision-support tool without further champion-led outreach.

The main outcome of the current analysis was frequency of outpatient PE management using the modified tool, defined as discharge home directly from the ED, stratified by the PE Severity Index. The safety measure of outpatient care was 7-day PE-related hospitalization.

The study included 1,039 patients: median age, 65; 51%, women; 47% were rated lower risk on the PE Severity Index.

Overall, 278 patients (26.8%) were treated as outpatients, with four 7-day PE-related hospitalizations (1.4%).

The practice gap in outpatient management created by the earlier trial persisted for patients with lower risk: 46.2% at former intervention sites, compared with 34% at former control sites, with wide interfacility variation.

“We have a companion study underway that is interviewing emergency physicians to help us understand why some have embraced home management and others are more hesitant,” Dr. Vinson said. “The results will help us tailor our physician education to address these concerns.”

Dr. Nicholas Kman, a professor of emergency medicine at Ohio State University and an emergency medicine physician at Ohio State University Wexner Medical Center, both in Columbus commented on the study in an email to Reuters Health.

He noted that the U.S. government “financially incentivizes clinical decision support implementation into EHRs (and) it is also not terribly difficult to have onsite champions – physicians, nurses, educators or pharmacists – who can educate and promote change of practice.”

However, he noted, “As the authors say, ‘Our findings may not be generalizable to different populations and health care settings, especially

those with less comprehensive or reliable follow-up infrastructure.’ This is a huge point.”

“In this study, patients received timely follow-up (< 3 days) and had access to anticoagulants with long-term monitoring by a pharmacy-led telephone-based anticoagulation management service,” he said. “Most hospitals would have a difficult time funding, starting, and facilitating this program.”

“Further,” he added, “the American College of Chest Physicians guidelines (state) that ready access to pharmacotherapy and close follow-up are both prerequisites for outpatient care in these types of patients. At one of our clinical sites, we see many uninsured patients. ... It would be almost impossible in an uninsured or underinsured patient to guarantee access to both the anticoagulation medication and to close follow up. We often have to see these patients back in the ER.”

Although Ohio State has clinical guidelines for the treating PE, Dr. Kman said, “We ... certainly would have a difficult time ensuring this type of close follow-up even for insured patients. It is something that literature like this can help other institutions aspire to model.”

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