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CORRESPONDENCE - UNSOLICITED LETTERS TO THE EDITOR

# Overcoming barriers to outpatient management of emergency department patients with acute pulmonary embolism

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We commend Westafer and colleagues[1] for their study of home discharge of adults with acute pulmonary embolism (PE) from emergency departments (EDs) across 740 diverse U.S. acute care hospitals. They found that outpatient management of ED patients with acute PE in the United States in 2016 to 2018 was uncommon (4.1%). Among 568 hospitals in the study with 20 PE cases or more, the median proportion of home discharge from the ED was only 3.1% and ranged broadly from 0% to 13.0% at the 10th and 90th percentiles.

The ED to which a patient presented was a strong predictor of disposition after adjusting for patient case mix. Some of the variation among the 740 hospitals was accounted for by analyzable facility factors: rural vs urban (median = 6.7% vs. 4.4%) and small vs medium vs large (median = 7.5% vs 4.0% vs 3.1%). The authors posit that factors absent from their data set may also have contributed to variation in PE site-of-care management, such as local protocols, local context, and availability of outpatient follow-up. Reliable follow-up is critical and was a leading barrier to outpatient PE care identified in a recent survey of 119 emergency physicians from two academic medical centers in the Midwest.[2] Other barriers included unfamiliarity/discomfort with outpatient PE care, high patient costs of newer anticoagulants, and medicolegal liability exposure.

Addressing just one of these barriers may be insufficient to improve care delivery. A large integrated care system in Northern California (annual ED volume >1.4 million visits) has reliable access to timely post-ED follow-up. Nevertheless, the baseline proportion of ED patients with acute PE discharged home was relatively low (median = 7.5%) and varied widely across 21 EDs (from 0% to 14%).[3]

Why such variation in a system with broad uniformity of general processes of care? We suspect differences in "local context" as Westafer et al. proposed, including variations in informal practice patterns or cultures of care. Without protocols in place, some cultures may nevertheless support ED-based outpatient management, providing their physicians implicit permission; whereas in other EDs, physicians may feel inhibited from appearing an outlier because their department does not customarily manage patients that way. We designed an intervention to reframe outpatient PE management as "something we do here," more routine and less exceptional, while addressing the impediments of unfamiliarity and perceived risk. The intervention included physician education, a clinical decision support system integrated into the electronic health record to help identity eligible patients, personalized audit-and-feedback, and small incentives for initial enrollments.[4] Eight months of intervention increased the proportion of patients safely discharged home from the ED or an outpatient observation unit from 17.4% to 28.0%. There was no concurrent change in outpatient care at control sites. Others have had similar success when introducing an outpatient PE clinical pathway that helps with eligibility ascertainment and assures timely follow-up.[5]

We agree with Westafer and colleagues that a better understanding of the barriers and facilitators of outpatient PE care will help improve implementation of treatment pathways—and as their study shows, much implementation is still needed.[1]

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