ACP recommends new approach to prevent venous thromboembolism in hospitalized patients

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In a new clinical practice guideline published today in Annals of Internal Medicine, the American College of Physicians (ACP) recommends that doctors assess the risk of thromboembolism and bleeding in patients hospitalized for medical illnesses, including stroke, before initiating therapy to prevent venous thromboembolism (VTE).

VTE, comprised of pulmonary embolism (PE) and deep venous thrombosis (DVT), is a serious, common clinical problem. Because most hospitalized patients have at least one VTE risk factor, many hospitals routinely give patients blood thinners. However, these medications increase the risk of bleeding.

"The evidence does not support routine VTE prophylaxis in patients hospitalized for medical illnesses, including stroke," said Amir Qaseem, MD, FACP, PhD, MHA, Director of Clinical Policy at ACP. "If a patient is at risk for VTE, the American College of Physicians recommends that physicians prescribe heparin or related blood thinners, unless the assessed risk of bleeding outweighs likely benefits."

Benefits and Risks of Blood Thinners and Mechanical Devices

In patients hospitalized for medical illnesses, including stroke, prevention with heparin is associated with a statistically significant
reduction in PE events. In most cases, the clinical benefit of reducing PE events will outweigh the harm of increased risk of bleeding events, the guideline states. No differences in benefits or harms were found between the types of heparin used.

If a patient is at risk for VTE and bleeding from blood thinners, ACP does not recommend using graduated compression stockings. The evidence showed that they were not effective in preventing VTE or reducing death, and resulted in clinically important lower extremity skin damage.

ACP's recommendations do not apply to patients hospitalized for surgery.

**ACP Does Not Support Performance Measures that Encourage Routine VTE Prevention**

The guideline also includes a Policy Implication statement against hospital performance measures that promote universal VTE prevention regardless of a patient's individual risks for VTE and bleeding.

"Because there is no standard, accepted risk-assessment formula to identify which nonsurgical patients are likely to benefit from VTE prophylaxis, this is best left to physician judgment and performance measures encouraging routine prevention in all patients are inappropriate," said Dr. Qaseem. "Until we can better identify those patients who truly benefit, performance measures that encourage VTE prophylaxis for patients hospitalized for medical illnesses, including stroke, may encourage physicians to use prevention in low risk patients for whom the risks may exceed the benefit."

**Venous Thromboembolism**
In VTE, blood clots often form in leg veins (DVT). Pieces of these leg clots can break off and travel to the lungs, causing a serious condition called pulmonary embolism. A large embolism may result in acute heart failure or sudden death.

Twenty-six percent of patients with undiagnosed and untreated PE will have a subsequent fatal embolism, and another 26 percent will have a non-fatal recurrent embolism. Studies show that between 5 and 10 percent of all in-hospital deaths are a direct result of PE. The incidence of PE in the United States accounts for 200,000 to 300,000 hospitalizations per year.

Provided by American College of Physicians


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