Two Steps Can Reduce the Incidence of Secondary Stroke

Stroke is a leading cause of death and disability in the US with over 800,000 cases per year, but there are steps that can improve outcomes.

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Stroke is a leading cause of death and disability in the US with over 800,000 cases per year (with one in every four being recurrent). Many of these patients suffer not only from the deficits of their stroke, but also from secondary complications within days of their initial presentation.

Venous thromboembolism (VTE) is one such complication and can manifest as a deep-vein thrombosis (DVT) or a more deadly pulmonary embolism (PE). VTE occurs in up to 117 patients per 100,000 population annually with the Centers for Disease Control and Prevention (CDC) estimating that over 500,000 hospitalizations occur each year.

Studies show that 20 to 42 percent of hospitalized stroke patients will suffer from VTE[1] with rates increased in patients with leg weakness (which often occurs in stroke victims) and highest in those who do not receive prophylactic therapy.

According to the Agency for Healthcare Research and Quality, PE resulting from DVT is the most common preventable cause of hospital death. Moreover, PE accounts for up to 25 percent of early deaths after stroke.

Despite these statistics, the use of VTE prophylactic treatment has been shown to be suboptimal for admitted patients in general.[2] When specifically looking at stroke patients, it has been found to be "underutilized and rarely started after the first day of hospitalization."[3]

Considering the wealth of research, knowledge and advanced technology that is now available to clinicians, the incidence of VTE can be reduced. We do not need to wait for new technological innovations or clinical trials. By making use of what we have today, we can reduce adverse events and deaths by preventing VTE in stroke patients.

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To improve outcomes these patients, we need to keep in mind two key steps.

1. USE INTERMITTENT PNEUMATIC COMPRESSION

We have the clinical evidence—let's use it.

The CLOTS 3 study of nearly 3,000 stroke patients in the United Kingdom compared the efficacy and safety of intermittent pneumatic compression (IPC) therapy against routine care (hydration, aspirin, graduated compression stockings and/or anticoagulants). The study's purpose was to evaluate the effectiveness of IPC in decreasing

the risk of proximal DVT in patients who have had a stroke. Sponsored by the University of Edinburgh and the National Health Service, the randomized study found a 29-percent reduction in life-threatening DVT—and a 14 percent reduction in overall mortality—for patients receiving IPC therapy.

This landmark study should transform the clinical practice of DVT prevention in stroke patients.

2. ENSURE STROKE PATIENTS ARE ASSESSED AND TREATED

All admitted patients with a stroke or rule out stroke diagnosis should be assessed, and if determined to be at-risk, should be immediately treated with mechanical and pharmacological therapy, unless a documented contraindication exists. To reduce death and disability among stroke victims and help healthcare providers lower rates of VTE in stroke patients, Stroke VTE Safety Recommendations were released at the International Stroke Conference February 11-13, 2015. Created by a group of leading neurological health and patient safety experts brought together by the Physician-Patient Alliance for Health & Safety, the Stroke VTE Safety Recommendations are intended as a list of recommended steps to maximize VTE prevention, promote patient safety and health outcomes. They are intended as an easy-to-use guide and as a reminder tool. They are not intended to replace or substitute for the medical advice of the attending clinician.

By remembering just two things—using IPC and ensuring all stroke patients are assessed and treated—the lives and well-being of thousands of stroke patients may be saved and improved. ■

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