

Thrombosis UK works to increase awareness, understanding and support for all those affected by or at risk of blood clots, also known as 'venous thromboembolism' (VTE) the umbrella term for deep vein thrombosis (DVT) and pulmonary embolism (PE).

Recent newspaper articles drawn on the Parliamentary debate about the tragic death of Emily Chesterton due to an undiagnosed venous thromboembolism (VTE) or blood clot and the role of Associate Physicians.

The charity is devastated to hear of Emily's death and the tragic events surrounding this, and sadly, this news is typical of frequent contact we receive from families and loved ones who have lost someone dear to them due to a missed diagnosis of VTE. This happens in primary or secondary care by ALL GRADES OF HEALTH CARE PROFESSIONALS.

VTE is common and 1 in 20 people will experience a thrombotic event at some point in their life. However, despite frequency, the common signs, and symptoms of this 'Cinderella' condition are NOT UNDERSTOOD by all levels of health care practitioners.

G was a fit and healthy 40-year old when he began to experience painful aches in one leg. On a phone consultation his GP advised him to go to THE Emergency Dept because he thought he might have a DVT.... The doctor in the hospital insisted he did not have the signs and the pain he was experiencing was due to a muscle injury and discharged him. - Days later G woke struggling to breath and died shortly later, of an undiagnosed pulmonary embolism.

Jenny was an active 74-year-old who had been admitted to hospital for shortness of breath and after recovering from COVID. Jenny also complained of pains in her leg. Despite all the signs and a dizziness / collapse the prior night there was no suspicion of PE by any doctor who reviewed her, including a cardiac consultant. Over the following days symptoms grew worse, increased symptoms but still there was no suspicion of VTE. - Jenny died of an undiagnosed PE.

Suzanne experienced unexplained breathlessness, and was diagnosed with "asthma", despite multiple presentations at medical settings and not responding to asthma treatment. No clinician reviewing her considered thrombosis until she suffered a cardiac arrest and was rushed to hospital where she was discovered to have a bilateral pulmonary embolism.

Beth was a 42-year-old fit and healthy physiotherapist who enjoyed long-distance running and cycling. After experiencing excruciating pain in one leg she rested, but after a week she was short of breath and felt as if all energy had left her. Her diagnosis of a PE was not made until she collapsed, and tests showed she had multiple bilateral pulmonary emboli (blood clots on the lungs).

Forty percent of patients who die of a pulmonary embolism had been seen by a physician in the weeks prior to their death^{1 2}.

Studies of patients who die unexpectedly of pulmonary embolism reveal that they complained of nagging symptoms often for weeks before death related to pulmonary embolism and for every case of a pulmonary

¹ Kline JA, Runyon MS. Pulmonary embolism and deep venous thrombosis. In: Marx JA, Hockenberger RS, Walls RM, editors. *Rosen's Emergency Medicine Concepts and Clinical Practice*. 6th ed. London: mosby; 2006. pp. 1368–1382

² Safi M, Rostami RT, Taherkhani M. Unusual presentation of a massive pulmonary embolism. *J Tehran Heart Cent*. 2011 Winter;6(1):41-4. Epub 2011 Feb 28. PMID: 23074604; PMCID: PMC3466862

embolism (PE) diagnosed before death, there are at least two others diagnosed post-mortem, where the diagnosis was not considered pre mortem.

Throughout the UK and across primary and secondary care, individuals are dying prematurely because:

- (i) a diagnosis of venous thromboembolism is not being considered,
- (ii) and/or the National Institute for Health and Care Excellence pathway to VTE diagnosis / elimination, is frequently incorrectly interpreted and so not followed.

Thrombosis UK is calling for:

- Urgent action to improve teaching about VTE at an undergraduate level to healthcare professionals: that DVT are not 'older people with red, hot swollen legs' but that anyone can be at risk of a VTE, that many are clinically silent and the most common single symptom 80% of VTE patients report is an 'ache or pain in their leg.' And that pulmonary emboli can present with multiple chest symptoms and/or collapse and must be considered in anyone with unexplained chest symptoms or collapse.

The charity is devastated to hear of Emily's death and the tragic events surrounding this, and sadly, this news is typical of frequent contact we receive from families and loved ones who have lost someone dear to them due to a missed diagnosis of VTE. This happens in primary or secondary care **by people reviewed by all** grades of health care professionals; **these errors are not a recent development and have been occurring prior to the advent of the physician assistants. These errors will continue if there is not an improvement in the education and awareness of VTE within health care professions.**

Addendum

A deep vein thrombosis (DVT) is the formation of a clot in the deep veins of the leg. This can grow and part of the clot can break off and travel round the body to block part or all of the blood supply to the lungs. This is known as a pulmonary embolism (PE). The collective term for DVT and PE is venous thromboembolism (VTE)