Deep vein thrombosis occurs when a blood clot develops in a leg vein. If the blood clot is in the large veins of the thigh it can be life threatening. If the blood clot develops in the small veins of the calf it can only become life threatening if it grows and involves the large veins of the thigh. If it will grow it will typically do so in the next week or so. Venography, direct contrast injection and visualisation of all leg veins, calf and thigh, is the gold standard but is painful, expensive and exposes patients to contrast dye (allergies and possible renal dysfunction). Ultrasound of the legs is non-invasive and inexpensive but has limited sensitivity and specificity for calf DVT. To get around the limited sensitivity of ultrasound for calf DVT serial ultrasounds can be done a week later. These serial ultrasounds are done to ensure that a calf blood clot hasn’t grown into a dangerous thigh blood clot. D-Dimers are a blood test that detect any evidence of blood clotting (even getting a bruise may cause a positive D-Dimer). D-Dimers are sensitive but non-specific for DVT and as such are helpful for ruling out DVT in patients with low pre-test probability.

Figure 1. Primer on Venous Thrombosis