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Taking DVT testing out of hospital and into the surgery

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Moving one of the main analytical tests for deep vein thrombosis (DVT) out of the hospital and into the doctor's surgery is both saving money and improving the patient experience in the East Sussex Downs and Weald PCT.

In mid-2006, Eastbourne Downs Primary Care Trust was exploring different opportunities for new, more cost-effective treatment pathways that could facilitate Practice Based Commissioning. An audit was conducted of its medical assessment unit (MAU) data to determine what conditions would make the best targets for streamlining. It was quickly discovered that query DVT cases represented nearly half (48% of sampled case reports) of incoming patients to the unit. The review panel also found that, with the introduction of Payment by Results, there had been a significant increase in the number of short-stay (less than 24 hours) patients. In particular, many patients were coming in for periods of only two to four hours, for which the referring Primary Care Trust was paying full acute admissions costs of at least £400.

Referring so many patients for hospital assessment was not due to poor judgement on the part of the GPs, but a consequence of the fact that DVT is notoriously difficult to diagnose in surgery, where determinations are based strictly on a set of qualitative guidelines that are often difficult to assess. GPs therefore have to send nearly all cases of query DVT they encounter to hospital for laboratory and ultrasound diagnoses.

In response to these findings, a new clinical pathway was designed in which the Clearview Simplify D-dimer test (Unipath Ltd), which was already in use in the hospital itself, was moved out into the community for use in those primary care practices that regularly referred query DVT cases to the Trust. A direct booking system was also established for the hospital's Doppler facilities, enabling GPs to reserve ultrasound slots for their high-risk patients directly from their own offices.

The Clearview Simplify D-dimer test requires only a small drop of capillary blood and takes less than 10 minutes to perform. It can eliminate most patients who are negative for DVT when used in conjunction with a validated pre-test scoring method and comprises a rapid immunochromatographic test incorporating the 3B6 antibody specific for D-dimer, a degradation product generated during the process of clot dissolution (fibrinolysis). No ancillary equipment is required, and the test can be performed reliably by non-laboratory trained personnel, making it ideal for use in GP surgeries.

At the secondary care level, low and mid-probability DVT cases are now given a D-dimer blood test to screen against DVT. Those with a high probability of DVT and/or those with a positive D-dimer test are then sent to a rapid-access ultrasound clinic for final diagnosis. Community GPs reacted positively to the new initiative. Under the new system they are also able to make bookings directly into the ultrasound clinic, bypassing the need for hospital medical admissions, and significantly improving the patient experience.

Within just five months of running the programme, the number of query DVT admissions arriving to the EDH had been reduced by more than 50 per cent and after a year, DVT admissions had fallen to 20 per cent of their previous monthly volumes. A further benefit of this reduction is that the hospital's Medical Assessment Unit has been able to reprioritise its time on other conditions.

Performing D-dimer testing has also been adopted by a large private GP clinic in Oxfordshire, and they too have witnessed a major reduction in the number of their patients that they need to refer on for further testing.

If the approach taken in the Eastbourne area was repeated across the UK, the savings to GP surgeries and PCTs would be considerable, as would be the improvement in the way patients with query DVT are assessed.