The existing pathway for patients with suspected Deep Vein Thrombosis (DVT), used by Leeds Teaching Hospitals Trust Emergency Departments, was identified as an area for potential improvement in patient care and experience. Audit data and a process mapping exercise identified problems with the pathway including long waits for assessment by clinicians and investigation results, recurrent visits to hospital for patients requiring USS, and delays or omissions in LMWH administration.

2. Objectives

The aim of this project was to introduce a new pathway for patients with suspected DVT, which would:
- Reduce the number of hospital visits to a maximum of one per patient, up to and including an USS.
- Reduce delays in hospital by providing patients with an appointment time to attend for investigations and review.
- Allow exclusion of DVT within Primary Care for a specific group of patients not requiring an USS.
- Allow administration of treatment with LMWH within four hours of first clinical suspicion, for all patients who do not have a diagnosis made within four hours (in line with NICE guidance).

3. Methods

A team made up of clinicians from both primary and secondary care developed and implemented a new DVT pathway, using the ‘plan, do, study, act, cycle’, as a pilot for thirty seven General Practices in West Leeds. In this new pathway:

1. GP performs an initial assessment including an examination, observations, a Wells score calculation, blood tests, and a treatment dose of LMWH.
2. The GP then refers the patient to secondary care using an email template.
3. Patients receive a phone call from the Acute Medicine Ambulatory Service, and are either referred back to their GP (DVT excluded), or are given an appointment to attend hospital.
4. This appointment is for further review and investigations (including USS), which can all be performed in a single visit.
5. Further follow-up or discharge is then arranged depending on results and diagnosis.

This differs from the existing pathway, which relied on all assessment and investigations being performed in hospital (through the Emergency Department Clinical Decisions Unit), with no specific appointment times for patients and re-attendance often being required to complete investigations such as USS.

4. Outcomes

Twenty nine patients were included in the new pathway pilot scheme from 14th November 2017 to 14th April 2018. All patients had a maximum of one hospital visit. Patients attending hospital had a more streamlined service and spent less time waiting for review and results, because they all attended at a fixed appointment time. There was also a group of patients who successfully had DVT excluded without requiring any hospital attendances. The target of administering LMWH within four hours was met for all patients.

Results of the pilot compared to audit data from the pre-existing DVT pathway are shown in Table 1.

5. Impact

The pilot demonstrated a successful pathway, which met the intended outcomes and could potentially improve patient care and experience.

There was also the unintended impact of increasing GP workload, and additional education and support was required within primary care to address this.

The team are currently compiling a business case with the CCG with the intention of expanding the use of this DVT pathway to all Leeds General Practices.