Although incidence of tuberculosis (TB) in the UK is declining, it is still a significant health problem. Incidence in England is higher than in most other countries in Western Europe, and is largely focused in a number of high-incidence areas. The vast majority of active cases of TB (71%) occur in patients who were born overseas – mainly in countries with a high incidence of the disease – and may be the result of activated latent infection that was acquired in their birth country (Public Health England, 2018; NHS England and PHE, 2015).

Together, NHS England and Public Health England have funded a new national screening programme to offer TB tests in primary care to recent migrants to the UK. The programme commenced in pilot areas with high rates of the disease, including Southampton, where a TB specialist nurse has implemented screening in partnership with 11 Southampton GP surgeries. Among those tested, the programme had a 15% rate of positive results - this demonstrates the value of targeted screening.

Benefits of testing for latent TB
Active TB can cause great physical, emotional and social harm. Patients can become very unwell and may need to be hospitalised for long periods; without treatment the illness can be fatal. Patients with active pulmonary TB also represent a risk of onward transmission.

Treatment involves taking daily medication for many months – in the initial stage this can involve taking more than 10 tablets a day and patients may experience unpleasant or dangerous side-effects from the treatment.

Individuals with latent infection experience no symptoms and are likely to be unaware they have an infection. However, they are at increased risk of developing active disease as 5-10% of latent infections progress to become active (O’Garra et al, 2013). As such, identifying and treating latent TB can prevent future active cases and potential transmission of infection. According to NHSE and PHE (2015), screening for new entrants to the UK who come from countries with a high incidence

Offering recent UK migrants tests for tuberculosis in primary care

Key points
Incidence of tuberculosis in the UK is higher than in many countries in Western Europe
Most cases of active disease occur in people who were born outside of the UK
Testing recent migrants from high-incidence countries can identify cases of latent infection
Treating latent infection prevents morbidity associated with active disease and prevents onward transmission

Although incidence of tuberculosis (TB) in the UK is declining, it is still a significant health problem. Incidence in England is higher than in most other countries in Western Europe, and is largely focused in a number of high-incidence areas. The vast majority of active cases of TB (71%) occur in patients who were born overseas – mainly in countries with a high incidence of the disease – and may be the result of activated latent infection that was acquired in their birth country (Public Health England, 2018; NHS England and PHE, 2015).

Together, NHS England and Public Health England have funded a new national screening programme to offer TB tests in primary care services to eligible patients who are new migrants to the UK; this was implemented in areas of the UK with high TB rates. After Southampton was identified as a ‘hot spot’ and awarded funding, a Southampton TB nurse specialist implemented screening for latent infection in 11 GP practices.
of TB is an effective public health intervention. Box 1 lists patient eligibility criteria for screening.

Although it requires an initial investment, the prevention of active cases will yield budget savings after about four years.

In the US, a focus on detecting latent disease in new migrants was instrumental in reducing the number of active TB cases by 55% between 1993 and 2010 (Ormerod, 2013).

**Aims**

Our initiative aimed to increase TB awareness among the professionals working in the 11 GP surgeries and patients eligible for screening, break down misconceptions and stigma related to the disease, and make the TB test available and easy to access for these patients. We hoped this would enable us to identify latent TB infections and refer patients testing positive to our specialist TB service, where they could be offered treatment and support. Finally, we also aimed to speed up the diagnosis of active TB by offering testing and raising awareness of symptoms for when patients present to a GP surgery feeling unwell.

All GP practices in Southampton were informed about a proposed primary care screening programme and invited to participate.

**Implementation**

Funding for a role partly dedicated to implementing a screening programme in primary care was granted from July 2016; I was appointed to the role and approached the 11 GP practices that had expressed an interest in participating.

I undertook testing in the first practice to participate, as it did not have an available member of staff to take bloods at that time. I searched through hundreds of patient records to identify those eligible for screening, sent out invitation letters, telephoned and booked patient appointments, and then performed their test. The practice employed a new healthcare assistant (HCA) in this period so, once the service was up and running, the HCA and a practice nurse were able to undertake testing.

I worked with each surgery to identify and invite patients, and also trained their HCAs and nurses in how to perform the test, organise the weekly courier service to take samples for laboratory testing, and respond to results when received.

We experienced a number of challenges, in particular with the laboratory provision. The cost of sending samples to the out-of-area provider that was used at the time meant we were restricted to two collections per week. We have since moved to a local provider; this means surgeries can send samples every day via their regular courier with reduced administration. The new laboratory also provides results in a more secure electronic format than the emailed results that were provided by the previous laboratory.

Implementing change always involves challenges; it can take perseverance to continue without being discouraged.

**Future plans**

Ideally, all Southampton GP practices should be offering TB screening to their eligible patients to avoid inequities in provision. We are, therefore, in the process of recruiting more surgeries. We attended a recent training event for GPs, practice nurses and HCAs with our consultants to generate interest and I am currently visiting individual surgeries to give talks and help them set up the service. I have also attended local community events to raise awareness.

In other areas, TB specialist nurses prescribe treatment to patients with latent TB and we are planning to implement this in Southampton. This will reduce clinic waiting times and the pressure on our consultants. More importantly, it will be better for patients as it will reduce the delay in starting treatment.

We will continue to raise TB awareness both with primary care staff and with patients. The ultimate goal of this national screening programme is to eradicate TB; by treating latent cases, we can reduce patient morbidity by preventing active disease, as well as preventing infection spread by reducing the number of active cases. For a more detailed report of this initiative see Fudge (2018).

**Box 1. Patient eligibility criteria**

For inclusion in the screening programme patients must:

- Be 16-35 years old
- Have been born or have lived for six months or more in a country identified as high risk – that is, a country where the rate of TB is >150 per 100,000
- Have moved to the UK in the past five years
- Not had a TB blood test in the UK or been diagnosed/treated for TB before

In Southampton we extended screening to all asylum seekers and patients who arrived in the UK more than five years ago but had travelled to a high-risk area in the last five years.

Advice for setting up similar projects

- Be passionate about your subject and share your knowledge and experience
- Be accessible and available to all involved
- Look for opportunities to raise awareness
- Be open to change and new ideas
- Focus on long-term change and see implementation as gradual process – it does not happen overnight
- Celebrate successes

“An excellent example of embedding testing, with benefits for individual patients and the wider community” (Judges’ feedback)

If you would like to contact Deborah Fudge about this project, please email: deborah.fudge@nhs.net

References


