

PE1662/B

Scottish Government submission of 27 October 2017

The Scottish Government recognises that more needs to be done to tackle Lyme Disease in Scotland. Lyme disease is a complex disease with many confounding factors that limit the extent of our knowledge. To improve our understanding, our national multi-disciplinary Gastrointestinal Infections and Zoonoses (GIZ) group last year established a Lyme Borreliosis sub-group tasked with working specifically on these issues and to prioritise work on testing, treatment and public and professional awareness. Membership of the sub-group includes experts from Health Protection Scotland, James Hutton Institute, General Practitioners, Infectious Disease physicians and the National Lyme Borreliosis Testing Laboratory at Raigmore Hospital, amongst others.

On testing, the current guidance from the British Infection Society states that laboratory confirmation is not required for a confidently made clinical diagnosis of early Lyme disease. That is, if a patient presents to their GP with a history of a tick bite or exposure and the tell-tale 'bull's eye' rash or a spreading rash, antibiotic treatment for Lyme disease would be recommended immediately. Subsequent treatment is very effective and follow up testing is not required.

If there is uncertainty with the clinical diagnosis a follow up test would be recommended. There can however be complications with this approach. It is reported that it may take as long as 6-8 weeks for a detectable antibody response to develop in infected patients after being bitten by a tick. So for some symptomatic patients, blood samples submitted shortly after a tick bite may not be positive.

The National Lyme Borreliosis Testing Laboratory collaborates closely with experts at Public Health England and elsewhere, to keep the testing offered in Scotland under constant review and to ensure that patients have access to the most robust and scientifically justified testing regimen available. Nonetheless, as above, they recognise that there are gaps in the effectiveness of tests and are trying to address the lack of sensitivity in the diagnosis of early Lyme disease and to identify markers of active infection. The Lyme Borreliosis sub-group will consider the outputs of the National Institute for Health and Care Excellence's (NICE) review which is expected to be published in 2018 and will consider the effectiveness of testing.

Our understanding of the presence of 'persister' bacteria is developing. There is no definitive evidence yet for its presence which is reflected in the divergence of opinion among medical groups involved in Lyme Borreliosis. The staff at the National Lyme Borreliosis Testing Laboratory in Inverness and those at the PHE Lyme Disease Reference Unit in Salisbury held a workshop on Lyme Borreliosis and tick-borne diseases in June 2017 and agreed to co-operate on a joint project to address issues such as 'persister' bacteria and improve current diagnostic techniques. This work is ongoing and will feed into the work of the Lyme Borreliosis sub group.

We do however know that co-infections are present in Scotland. A small pilot study currently being performed by the National Lyme Borreliosis Testing Laboratory indicates that Anaplasmosis is present throughout Scotland. The laboratory is in the early stages of planning to establish a Lyme Disease and Tick-borne reference laboratory whose remit would be to provide a diagnostic service for other tick-borne infections, such as Anaplasmosis, louping ill, and Lyme disease.

As noted in the petition, one of the main priorities for the Lyme Borreliosis sub group is to raise knowledge and awareness amongst health professionals and the public by engaging with professional bodies and youth and outdoor recreation groups. They are engaging with a wide range of stakeholders, including tourist information offices, outdoor centres, rural hotels and GP and vet practices.

In terms of workforce education they have taken forward several pieces of work to help in this area. Professional resources have been produced or are being developed, including webinars and podcasts aimed at front-line clinicians. There are also information resources on the Health Protection Scotland website, and the NHS Education for Scotland website. A series of professional development sessions on Lyme Disease have been delivered to community pharmacy groups across Scotland in 2017. The sub-group will also consider how to make use of existing resources that could be deployed in Scotland. For example, the Royal College of General Practitioners' has developed an online course on Lyme Disease, and this will be considered in terms of its appropriateness to the Scottish context.

There is much more to come in this area: The group has produced new public-facing materials, explaining the risks from ticks and tick borne diseases and highlighting simple steps people can take to avoid infection. The group has also launched the Outdoor Bugs and Germs pages on NHS Inform (<https://www.nhs-inform.scot/bugs-and-germs>), bringing together in one place, for the first time, comprehensive advice on how to avoid infections that can be encountered in Scotland's outdoors, including Lyme disease. Scottish Government officials, along with members of the Lyme Borreliosis sub group are currently planning greater and sustained promotion of these materials commencing in Spring 2018.