

# Tick-borne Diseases in the UK

## Introduction

Lyme Disease is an increasingly prominent public health concern over the past decade, with incidence ranging from 3,000 – 8,000 cases per year in the UK, and rising infections in the past ten years<sup>1,2</sup>. It is the commonest tick-borne disease in humans living in the northern hemisphere<sup>1</sup>. For some it has a pronounced, long-lasting effect on health: with damage to the central and peripheral nervous systems, heart, joints, eyes and skin<sup>3</sup>. Limited good quality evidence about many aspects of Lyme Disease, coupled with widespread publicity about potentially serious complications, make this condition challenging for health professionals. There is a need for clear information and rational management for patients presenting with a range of symptoms where Lyme Disease is a possible diagnosis. It can be completely cured at the initial stages, if clinicians diagnose it correctly at the dermatological stage, or diagnose it at the early disseminated stage as the bacterium is sensitive to antibiotics. If early opportunities are missed, substantial morbidity can occur and it can be fatal.

All primary care clinicians need to be aware of Lyme Disease. The highest incidence in Scotland is in NHS Highland, but increasing numbers of visitors from other areas (and indeed from other countries in the UK), are returning home to urban areas, and present to in-hours and out-of-hours health services. This may be particularly relevant in a post-pandemic era, when people prefer to holiday in rural areas of Scotland or other parts of the UK, rather than travel abroad.

Non-Lyme tick disease is very rarely acquired in the UK, but it can present in travellers returning from abroad.

**This module aims to cover the following aspects of tick-borne disease in the UK:**

- definition and transmission of Lyme Disease
- prevention and management of tick bites with correct removal of ticks
- diagnosis (including the recognition of erythema migrans) and early treatment of Lyme Disease
- diagnosis and treatment of chronic Lyme Disease
- interpretation and uncertainties of lab testing for Lyme Disease
- presentation of other tick-borne disease in the UK