



Australian Government

Department of Health

CHIEF MEDICAL OFFICER

Progress Report on Lyme Disease in Australia

In late 2012, the New South Wales Chief Health Officer wrote asking me to provide national leadership regarding the existence of locally acquired Lyme disease in Australia. Having regard to the patients suffering from a Lyme disease-like syndrome, I established the Clinical Advisory Committee on Lyme Disease in Australia (CACLD). The CACLD was tasked with providing advice on diagnostic testing, treatment and further research requirements in relation to Lyme disease in Australia. The CACLD met five times and concluded its work at the last meeting held on 15 July 2014.

As the committee has now ceased, I am taking the opportunity to provide a progress report (attached) against each of the committee's terms of reference and also highlight what the Department of Health's future role will be regarding Lyme disease in Australia.

Yours sincerely

A handwritten signature in blue ink that reads 'Chris Baggoley'.

Professor Chris Baggoley, AO

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31 July 2014

Attachment:

Progress report against the CACLD terms of reference

Progress against the Clinical Advisory Committee on Lyme Disease in Australia's Terms of Reference

The CACLD was asked to provide advice on:

1. The extent to which there is evidence of *Borrelia* spp causing illness in humans in Australia.

- There is still no routine finding of *Borrelia* spp in ticks in Australia.

The conclusive finding of a bacterium that could cause Lyme disease-like syndrome in Australia has yet to be made. Such a finding would put beyond doubt the existence of Lyme disease, or a Lyme disease-like syndrome in Australia.

- Further research is required to determine if *Borrelia* bacteria are present in ticks in Australia.

Progress of research projects underway, including the work of Prof. Peter Irwin (Murdoch University) and Dr Ann Mitrovic (University of Sydney), and other pending publications will be monitored by the department and significant outcomes will be communicated when available.

The requirements for additional research were identified in the Scoping Study and expanded on in the Department of Health's response to the Scoping Study.

- Other vectors and routes of transmission are postulated, but yet to be demonstrated.

Submissions received for the Scoping Study raised the potential for Lyme disease or Lyme disease-like syndrome to be transmitted by other vectors (including flies, sand flies and mites). The competence of these proposed vectors for *Borrelia* spp. has yet to be demonstrated.

A number of person-to-person transmission routes were also proposed, but large scale clinical studies have yet to be conducted to determine this.

- The development of appropriate laboratory diagnostic method and treatment guidelines will remain difficult until a causative indigenous organism for a Lyme-disease-like syndrome is characterised.

2. The most appropriate laboratory diagnostic testing algorithms (best world practice) for persons who have suspected borreliosis in Australia.

- The most appropriate laboratory testing algorithm has yet to be agreed.

The doubts around the sensitivity and specificity of diagnostic tests available in Australia hinder the exploration of a potential *Borrelia* infection in Australian patients with no relevant travel history.

- Steps are being taken to ascertain the most appropriate diagnostic algorithm.

- The clinical presentation is frequently the basis for diagnosis, but there is no agreed case definition.

The lack of an agreed case definition for Lyme disease hampers the diagnosis of patients in Australia. Clarity around the presenting signs and symptoms of an Australian Lyme disease-like syndrome would aid the investigation into whether an indigenous form of *Borrelia* exists in Australia.

3. The most appropriate treatments for borreliosis in Australia.

It is the department's view that evidence based treatment guidelines should be completed once a causative organism is identified.

- Guidance is necessary to assist medical practitioners to manage patients who have acquired the infection from endemic areas overseas.
- Treatment of acute Lyme disease acquired from overseas endemic areas is generally agreed and would comprise of a short course of antibiotics such as doxycycline.
- The treatment for 'chronic' Lyme disease is more contentious and the existence of this form of the disease is strongly disputed.
- If a person who has been diagnosed with Lyme disease and does not respond to treatment or has relapsed, then the treating medical practitioner should consult with a medical practitioner who has experience in treating Lyme disease.
- The issue of co-infections adds additional complexity.

4. The most appropriate ways to disseminate information to health professionals and the general public on borreliosis/Lyme disease.

When there is further information to communicate it is proposed that a similar approach to that used for the distribution of the CMO's advice to clinicians is used. The specific communication lines would be:

- The Department of Health to Australian medical practitioners (via the relevant colleges);
- The Department of Health to Chief Health Officers of each state and territory either directly or through the Australian Health Protection Principal Committee;
- The Department of Health to the general public via the website <http://www.health.gov.au/lyme-disease>
- The Department of Health with advocacy groups through the participation in the Patient Reference Group; and
- If required, departmental attendance at relevant conferences.

5. The requirements for further research into borreliosis in Australia.

A consolidated list of the research projects that have been identified by the department, in consultation with the CACLD, is attached to this Report.

6. The generation of appropriate new questions relevant to the terms of reference.

This was discussed at the last CACLD meeting. Tick bite allergies and the prevention of tick bites in Australia was suggested and has been incorporated into the consolidated list of research projects.

The department will work with state and territory health authorities about public health messages associated with tick bites including prevention and treatment.

Way forward

The department's interest in an Australian Lyme disease-like syndrome will be maintained. The department will continue to:

- Consult with members who made up the CACLD;
- Monitor progress made in research;
- Act as a point of contact within Australian Government for the Lyme disease community including medical practitioners and state and territory health authorities;
- Work on the diagnostic pathway with relevant stakeholders (including laboratory collaboration) and will inform patient groups of progress
- Seek advice from international partners; and
- Write to patient groups and medical practitioners to update them on Lyme disease progress.