



Registered Charity: 19588

"Encouraging awareness, prevention & treatment of Lyme Disease (Borreliosis) in Ireland."

### Discussion with the HPSC January 22<sup>nd</sup> 2013.

In attendance John Ahern (Secretary), Pauline Reid (Chair), Jenny O'Dea (Co-founder),  
Dr Paul McKeown (Public Health Specialist HPSC), Dr Patricia Garvey, (Surveillance Scientist HPSC)

During the year Tick Talk Ireland has submitted a number of documentation some of which was discussed on the day. I have summarised the information provided for referral.

#### 21<sup>st</sup> March 2012 – Statement of Concern

**i) Recognition:** patients have reported that many consultants/GPs have little recognition of lyme. Tests are being refused (no lyme in Ireland is often the reason quoted) & rashes are being dismissed (a sheep farmer in Kerry with an expanding rash was told she had shingles, she was later positive for lyme - early treatment was missed. Another patient was told she had a spider bite due to the ring shaped rash - the patient subsequently developed neuroborreliosis).

**Conclusion:** We feel it is vital that GPs/consultants become more familiar with lyme disease in its various manifestations (1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> stage) & acknowledge that lyme exists in Ireland.

**ii) Testing:** There are multiple concerns over testing including strains (Ireland has been known to harbour strain VS116, found in 50% of borrelia infected ticks in one of Prof Gray's studies). Studies have shown VS116 in spinal fluid & EM rash. This strain is NOT being picked up in current testing.

Plus the 2 tier system can create problems if a patient fails to show positive serology in the 1<sup>st</sup> tier (Elisa). Despite this if a patient is negative in the 1<sup>st</sup> tier they are simply not offered a 2<sup>nd</sup> tier test.

Per Trinity Biotech: (see document 44-8696G EU lyme test sheet attached)

\*Strains exhibit antigenic variation.

\*Patients may not have detectable antibodies.

\*Antimicrobial treatment may affect results.

Thus in their own words **'tests have been shown to have low sensitivity and specificity and, therefore, cannot be relied upon for establishing a diagnosis of Lyme disease.'**

The 2<sup>nd</sup> tier (Western Blot) test also has problems of its own similar to above but also the number & types of bands were restricted following the release of the vaccination in the 90's. For instance bands 31 & 34 are no longer reported even though they are lyme specific (OspA & OspB). This means that a patient can still be declared falsely negative in the 2<sup>nd</sup> tier when they in fact have LD.

**Conclusion:** We feel that strain VS116 should be considered of major importance in any future research. We feel it imperative that doctors/consultants are made aware that a negative should NOT be used to rule out infection nor should it be used to delay treatment where a case is suspected (for instance waiting for lab results when an EM rash is already present). A statement similar to the one produced by Health Canada on limitations of testing (see link below) maybe required, to ensure that medical practioners are aware that problems do exist.

Health Canada: [http://www.hc-sc.gc.ca/dhp-mps/medeff/bulletin/carn-bcei\\_v22n4-eng.php#a1](http://www.hc-sc.gc.ca/dhp-mps/medeff/bulletin/carn-bcei_v22n4-eng.php#a1)

**iii) Persistence:** There exists a divide between the Infection Disease Society of America & the International Lyme & Associated Diseases Society on the best method of managing lyme patients, particularly those who have received treatment late in their diagnosis. Such patients may need longer treatment due to the dissemination of the disease to the brain, joints & muscles which can make it harder to reach with anti-microbial treatment. The morphology of the borrelia bacteria can provide a survival mechanism (for instance spirochetes can transform into L form bacteria & round bodies) too. Studies by Eva Sapi who presented at the Irish Lyme Conference showed that after treatment was stopped (in vitro) that the round bodies became motile again after a period of 3 weeks, which may lead to relapse after treatment or flare-ups during the course of the illness. The IDSA guidelines can be very restrictive & consultants are scared to treat beyond the 2-3 weeks recommended for fear of their licenses. We feel that more research needs to be done (Sapi found that Tinidazole or Tigecycline was much more effective than Doxycycline at tackling round bodies aswell as spiros). This kind of research paves the way to getting patients better, using restrictive guidelines & believing that chronic lyme doesn't exist leaves the patient no better at all.

**Conclusion:** We feel that consultants should not be fearful of their patients. Those that do treat their patients longer term (taking in account of risk/benefit) should not be fearful of guidelines. The patient's best interest in getting them better is most important at the end of the day. More research would be welcomed in handling lyme patients long-term, or an open mind when more research does appear even when it's outside the remit of the IDSA.

**iv) Co-infections:** Reports coming back from patients are that co-infection testing is not being done even when a patient asks for it. This can have serious implications as ixodes ticks have been shown to carry a multitude of infections affecting both humans & animals. A co-infection also requires different management by way of anti-bacterial or anti-parasitic medication. It can also hamper the patient's recovery if the infection itself is bringing the immune system down. Other opportunistic infections can then take place.

**Conclusion:** A consultant with vast knowledge of various tick-borne infections would be of value as some require clinical diagnosis similar to Lyme; treatment of co-infections may improve the patient's recovery time.

**v) Transmission:** We looked at the possibility of borrelia surviving blood bank storage & the possible implications. Babesia for instance can be passed on via blood transfusion & borrelia has been known to survive freezing.

**Conclusion:** Some consideration may need to be made to ensure that the blood banks are safe.

**vi) Guidelines:** Following the consensus statement with the IDSI, HPSC et al published Oct 2012 we know that the IDSA guidelines dominate. However the implications are that chronic lyme patient's needs are not being addressed (IDSA does not even believe in chronic lyme, however believing in something & it actually existing are two different things). We feel that restrictive guidelines can stifle research – for instance Eva Sapi's latest studies on morphology & the best antibiotics to use for chronically affected patients (refer to conference disk 2 for her studies) are being ignored by the IDSA & that subsequently means the patients who could be helped by this research are being ignored too. In fact there remains many, many studies on persistence & seronegativity in the public domain. Coupled with the fact IDSA guideline authors themselves published articles on seronegativity & persistence of lyme in the past & have disregarded some of their own information (see document on seroneg/persistence attached) - it seems that blinkered thinking does nothing to promote progress.

**Conclusion:** We feel that physicians should not be made to feel threatened if they have a chronically ill patient & need to work beyond the realms of the IDSA guidelines. A statement should be made on the consensus statement by the IDSI, HPSC et al the following words **'It is important to realize that guidelines cannot always account for individual variation among patients and should not be used as a substitute for the individual expertise and judgement of healthcare professionals.'**

We have as part of our letter of concern listed various scientific studies relevant to our concerns, these are just a small selection of the ones we have on hand.

### **On 27<sup>th</sup> November – Consensus Statement**

Tick Talk submitted a further statement in response to the IDSI et al's consensus statement with our concerns regarding restrictive guidelines/testing. The document accompanying this was similar to the letter of concern however we focussed mainly on recognition (including confusion over rashes), testing & guidelines. Our main point was that Lyme does exist in Ireland & looking for a properly defined bulls-eye target rash can literally miss the mark! It can often be homogenous so looking for too narrow a definition may indeed miss the chance for early treatment. We looked again at the problems of testing & quoted IDSA's own statement that says that guidelines are voluntary, & yet many doctors are fearful of using alternative methods that are outside the bounds of the IDSA.

### **Further Discussions:**

At our meeting we expressed concern over notifiable cases not picking up those at an early stage (such as EM rash). This means that tracking of numbers maybe incomplete if relying solely on stage 3 cases lab confirmed cases. As we discussed also, notifiable cases are not including those tested outside the 2 tier system in Germany. The German labs (Melisa & Infectolabs) use an Elispot/LTT technique.

The downside of this test is that it is not recordable for notifiable cases being outside the 2 tier system but the upside is that it measures T cell activity over the course of treatment & enables the doctor to evaluate treatment response, something that the antibody test may not be able to

distinguish accurately. It is also CE approved. We appreciate that the 2 tier system is considered 'gold standard' in all parts of the world but we do also feel that until testing sensitivity/specificity can be improved that other tests should be considered in the clinical picture. It is after all a clinical diagnosis 'supported' by lab results.

Without true tracking of numbers both at early stage, plus late stage using overseas testing, the true numbers of cases here in Ireland is currently unknown. We discussed whether a GP survey could be initiated to understand a. the GP's level of knowledge and b. clusters of cases in certain areas (similar to the one undertaken by Dr John McCormack in the Connemara area).

### **Some other points & future plans discussed:**

We also asked what implication does the rare disease policy have that was discussed at the senate last year (answer unknown). See <http://debates.oireachtas.ie/seanad/2012/03/07/00008.asp>

We discussed the guidelines set by the British Infection Association & Jenny agreed to send a statement by the UK based charity Lyme Disease Action that contended some of the information (available at <http://www.lymediseaseaction.org.uk/wp-content/uploads/2011/08/LDA-on-BIA.pdf>).

The HPSC have agreed to submit a notice to all doctors electronically with easy to follow tips to aid early diagnosis which will go a long way in preventing more chronic & difficult to manage cases. A press release will also be made in the Spring warning the public of the dangers of ticks.

Tick Talk Ireland are planning a new book called 'The Adventures of Luna & Dips' of which we hope to release in the Spring. This is designed to also be appealing to children from aged 8 or 9 upwards. We feel that school children should be warned on the dangers of ticks.

We have agreed to send a copy of our leaflet to the HPSC for their information (see <http://www.ticktalkireland.org/lymeleaflet.pdf>).

We would like to encourage leaflets or posters in health centres from the HPSC/HSE as sometimes they won't accept Tick Talk literature. We feel that it gives a much more serious message coming from the health department. The European CDC have literature available specifically designed for use with GP's, children, travelers etc. (see below for list of available brochures / posters) [http://www.ecdc.europa.eu/en/healthtopics/tick\\_borne\\_diseases/public\\_health\\_measures/Pages/communication\\_toolkit.aspx](http://www.ecdc.europa.eu/en/healthtopics/tick_borne_diseases/public_health_measures/Pages/communication_toolkit.aspx)

### **Some recent improvements:**

The good news is that the 2<sup>nd</sup> tier (Western Blot) test has been improved since Porton Down took over testing from Southampton last summer. Previously 3 bands were required for a positive result & test strips were manually read. It has now changed to 2 bands for a positive & machine read. We still have the issue of antigenic strain variation (VS116 is highly prominent in this country & not being picked up in tests); problems with some patients having insufficient antibodies; problems with antibodies sequestered in immune complexes & problems with restrictive banding since the 90s, where bands 31 (OspA) & 34 (OspB) were removed. We also feel that to reach WB stage a patient still has to be positive at Elisa stage, which as mentioned in the testing section can be problematic for some. C6 testing which was introduced to improve testing has the same inherent problems.

Another concern is what happens to all those patients told in the past they were negative, who may now be positive in the current system? Is there any mechanism for re-testing old data?

### **Our wish list in summary:**

\*Tick Talk Ireland would like to see patient testing improved greatly & in the interim a greater awareness among physicians that a negative test result does NOT rule out a Lyme diagnosis.

\*We would like to see IDSI's et al consensus statement reflect the uncertainties regarding testing (similar to health Canada) as well as make it clear that adherence to guidelines is 'voluntary'.

\*We would like to see more research on the various strains in Ireland including VS116 which is not currently being picked up in testing.

\*We would like to encourage co-infections to be tested for & treated in tick infected patients.

\*We would like to ensure that physicians AND the public are familiar that Lyme Disease does exist in Ireland & recognise the signs at the early stage to prevent dissemination. (They also need to be aware that the rash if it appears at all does not always conform to the typical bulls-eye lesion.)

\*We would like school children also be made aware & notices up in medical centres where possible.

\*We would like to see clinical cases added to notifiable criteria to improve tracking or in the interim a survey among GPs to help track numbers.

---

### **Patient Survey:**

To conclude I have added below a wish list voted by patients. We asked at our conference which topics were most desirable here in Ireland (from 1 highest priority to 10 least priority).

30 responded at the conference & a further 14 replied online. The results were as follows:

- 1<sup>st</sup> – Specialist Centre for treating Lyme patients
- 2<sup>nd</sup> – Improved Testing for both acute AND chronic cases
- 3<sup>rd</sup> – Testing for co-infections (often not considered by NHS/HSE)
- 4<sup>th</sup> – Notifiable Status to include clinical as well as lab diagnosed cases
- 5<sup>th</sup> – Studies on chronic & post Lyme (ie persistence of symptoms) & how to treat them
- 6<sup>th</sup> – Training of Irish doctors & consultants in America (under ILADS training programme)
- 7<sup>th</sup> – Leaflets & Posters distributed to all GPs
- 8<sup>th</sup> – Pooling of resources for traditional & alternative therapists
- 9<sup>th</sup> – Projects for school children to learn about prevention & protection
- 10<sup>th</sup> – More tick studies in Ireland to assess what infections they may be carrying

We would like to thank Dr Paul McKeown & Patricia Garvey greatly for their time which was hugely appreciated. We don't expect to change the landscape over night but would like to see some changes being made in respect of awareness, diagnosis & treatment here in Ireland.