



Special Points of interest:

- The question of whether PTLDS exists or not is one of the most hotly debated topics in medicine today.

Inside this issue:

Post Treatment—Lyme Disease Syndrome (PTLDS)	1
ACA Recertification Packets	2
Laboratory Patient Safety Tips-Blood Specimen Collections 2014	3
Vitamin D Controversy	4
ABP Continuing Education	4

POST TREATMENT—LYME DISEASE SYNDROME (PTLDS)

Lyme disease is an infection caused by the bacterium *Borrelia burgdorferi*. In the majority of cases, it is successfully treated with oral antibiotics. Approximately 10 to 20% of the 300,000 patients treated for Lyme disease with a recommended 2-4 week course of antibiotics will have lingering symptoms of fatigue, shooting pain, or joint pain, muscle aches and memory loss. In some cases these symptoms can last for 6 months or longer and sometimes called “chronic Lyme disease” but should properly be called “Post-Treatment Lyme Disease Syndrome”. Many doctors and infectious disease specialists are not convinced that chronic Lyme disease is a real condition.

Lyme Fact # 1: New research suggests that Lyme bacteria, a relative of the pathogen that causes syphilis, could be sexually transmitted.

Lyme Fact # 2: Ticks instinctively inch toward heads and ears, where skin is thinner, for easy feeding. But they often get stuck in bunched clothing behind knees and in armpits.

Lyme Fact # 3: It takes 36 to 48 hours for Lyme bacteria to be transmitted from a tick via bacteria-ridden salivary glands.

Lyme Fact # 4: Ticks can sense where there’s animal and human activity, making the edges of forest trails latch-on hot spots.

Lyme Fact # 5: Clothing sprayed with the chemical permethrin can kill ticks in midcrawl as they traverse the fabric. Repellent with 20% DEET works on the skin.

The question of whether PTLDS exists or not is one of the most hotly debated topics in medicine today. On one side are the angry patients and Lyme-literate doctors that insist that PTLDS is a serious condition in need of attention. On the other side are the doctors and scientists what the condition is not necessarily from Lyme disease and that continuing to treat the patients with antibiotics can be ineffective and harmful to the patient. There is no test yet that can identify an actual Lyme infection because the bacteria disappear once inside the human body. The current antibody test recommended by the CDC reveals only whether an immune response to Lyme has taken place. It cannot determine when the infection occurred in the first place or whether it has been cured.

An infectious disease expert, Adriana Marques, has done several studies using a technique called xenodiagnoses, to try to find out if the bacteria really can persist after treatment. In the studies, Lyme-free ticks were allowed to feed on monkeys and mice that had been treated with antibiotics for the disease. The bacteria were found in the ticks, providing the strongest indication yet that the pathogen can survive treatment. In 2010, Marques tried this same study in humans but found the ticks to only contain the DNA the *Borrelia* bacterium. This was not the conclusive evidence that they had hoped for but it did prove that the bacteria can continue on, dead or alive, in humans. It also supports the hypothesis that the infection may persist after antibiotic therapy. Still unknown is whether or not the bacteria remain infectious. Thus further studies are needed.

POST TREATMENT LYME DISEASE SYNDROME (Con't)

Borrelia burgdorferi is a tough bug. As soon as it infects a person, it disperses through the bloodstream. Then this spirochete uses its corkscrew shape to burrow into human tissue, infecting joints, the heart, and even the nervous system tissue. It changes its appearance to escape detection by the immune system. Because this bacterium does not follow a familiar pattern, immune cells in the body have no way to identify the invaders. Thus CDC approved tests which look for the Lyme antibodies are not 100% accurate.

"The exact cause of PTLDS is not yet known. It is believed that the lingering symptoms are the result of residual damage to tissues and the immune system that occurred during the infection."

The exact cause of PTLDS is not yet known. It is believed that the lingering symptoms are the result of residual damage to tissues and the immune system that occurred during the infection. However similar complications and auto-immune responses are known to occur following other infections such as Guillain-Barre syndrome, Reiter's syndrome and even strep throat. Studies have not shown that patients who received prolonged courses of antibiotics do better in the long run than patients treated with a placebo. Long term antibiotic treatment for Lyme disease has been associated with some serious complications. The good news is that patients with PTLDS almost always get better with time but it can take months to feel completely well.

Some things to help manage PTLDS include:

- Check with your doctor to make sure that you do not something other disease.
- Become well educated about Lyme disease and your options.
- Track your symptoms, sleep patterns, diet and exercise in a diary.
- Maintain a healthy diet and get plenty of rest.
- Share your feelings with family and friends or a support group to help you get through this difficult and frustrating time.

References <http://www.cdc.gov/lyme/postLDS> <http://niaid.nih.gov/topics/lymedisease>

PREVENTION.COM/ MAY 2014

ACA RECERTIFICATION PACKETS

If your ACA certification expires on June 30, 2014, you will have received a packet of information on how to recertify. If have not received your packet, please contact the ACA office. If you have moved, notify ACA of your new address to receive your packet. **NOTE:** You will NOT receive a recertification packet if your certification does not expire until June 30, 2015.

What to submit to ACA as proof of continuing education:

- certificates of attendance
- copies of transcripts that document class completion (multiply each qtr. credit x 10 and each semester credit x 15 to get CE credits)
- CE printouts from employer
- Lists of CE activities verified by manager signature

The documentation must include the following:

- Date(s) of attendance and title of activity
- Number of CE credit assigned or amount of time spent (1hour of time = 1 CE credit)
- Signature of person issuing or verifying the activity

NOTE: Any recertification postmarked between June 30, 2014 and August 31, 2014 must include a \$ 40.00 late fee.

After September 1, 2014, recertification is by re-examination.

LABORATORY PATIENT SAFETY TIPS—Blood Specimen Collections 2014

American Society for Clinical Laboratory Science

1. Is there any information what would be helpful to share with the laboratory professional before they collect my blood specimen?

- To help assure your safety, if any of these apply to you, share that information with the professional collecting your blood.
- Previous problems associated with a blood specimen collection, i.e. fainting, pain lasting several days, bruising or swelling at the site.
- Currently on medication that may cause prolonged bleeding, i.e. chemotherapy, warfarin(Coumadin), heparin or aspirin.
- Specific draw sites that have been successful in the past.
- Previous mastectomy or axillary lymph node dissection.
- An arterial-venous fistula.

2. What should I watch for after the procedure?

- A common complication from venipuncture is bruising or hematoma. This occurs when blood leaks out of the blood vessel into the surrounding tissue. This may cause the site to swell and be painful.

“To help avoid getting a bruise after a blood draw, apply direct pressure to the site for 3 to 5 minutes immediately after the needle is removed.”

3. Aren't I safe when the bleeding stops?

- It may appear that the bleeding has stopped on the skin surface within a minute or two, but the clotting process requires more time to complete.

4. What if I am on a blood thinner or anticoagulant?

- If you take prescribed medications such as warfarin (Coumadin), are undergoing cancer treatment, or have some other bleeding disorder, pressure may need to be applied longer.

5. What can I do to avoid complications?

- To help avoid getting a bruise after a blood draw, apply direct pressure to the site for 3 to 5 minutes immediately after the needle is removed.
- Do not bend the arm to apply the required pressure as this does not apply enough direct pressure to the actual site.
- If a bruise does occur, use general first aid; ice the area and avoid use of the arm. If the area that is bruised causes pain and it does not subside with appropriate first aid measures, seek further medical attention from a healthcare provider.

6. Should I avoid activities?

- You should avoid leaning on or using the arm that the blood was drawn from for exercise or heavy lifting for a few hours to prevent dislodging of the fibrin clot that formed to stop the bleeding.

PHEBOTOMY TODAY—STAT! E-Newsletter

Sign up for the Center for Phlebotomy Education's FREE e-newsletter!
www.phlebotomy.com

Get the latest information on phlebotomy around the world. There are numerous Phlebotomy DVDs and other items available for phlebotomy training. There is also continuing education available, both online and by subscription.

VITAMIN D CONTROVERSY

In recent years the public has been made aware of the problems associated with vitamin D deficiency. But among doctors there is a lot of confusion about how, when and for whom the disorder should be diagnosed and treated. A recent study showed that the number of diagnoses for vitamin D deficiency tripled from 2007 to 2010. This occurred despite recommendations by the Institute of Medicine that testing should be restricted to those at risk for weakened bones and fractures.

Scientific papers have reported that low vitamin D is linked with serious diseases such as rickets and osteoporosis. Recent studies have linked vitamin D deficiency to elevated risk for some cancers and cardiovascular disease. Americans, Canadians, Europeans and anyone living in the Northern Hemisphere do not get enough vitamin D from the sun especially due to the severe winters that are common in the northern U.S. Many doctors feel that since vitamin D testing is relatively inexpensive that people should be tested as a preventive measure just like people are tested for cholesterol. Other doctors feel that everyone should be given supplements without benefit of testing.

Everyone can agree that insufficient vitamin D is on the rise and can pose health risks. Testing for anyone suspected of low vitamin D will enable the doctor to prescribe dosage and monitor treatment. Individuals need to educate themselves on vitamin D and then discuss with their doctor whether or not they should be tested and whether or not supplements are in order. Risk prevention is usually always a good strategy.

Reference: www.mlo-online.com June 2014, Vol.46, No.6

ABP CONTINUING EDUCATION INFORMATION

A reminder that ABP, Inc. offers home study continuing education booklets to help you earn CE contact hours.

Call ABP at (574)277-0691 to order or visit ABP's website at www.abpincorp.com to download an order form.

New and popular online modules available include:

All About Bed Bugs	Atrial Fibrillation
Basics of HPV	Biological & Chemical Terrorism
Chronic Fatigue Syndrome	Communication Skills: Neonate-Geriatric
Hand Hygiene	HIPAA Security Rules
Introduction to Tuberculosis	Medical Coding: E Codes
Medical Coding: V Codes	MRSA Infections
Nutrition, Diet and Feeding Patients	OSHA Haz Com Standard (New!)
Patient Rights	Routine Venipuncture
Seasonal Flu	Summertime Hazards
Vitamin D (New!)	Workplace Violence