FALL NEWSLETTER 2010

Tick-borne North Carolina,  Infections Council of Inc

Highlights…

Scroll down to see these features and more!

- Making Waves for TIC-NC~ one member's fundraising program. Thank you, Howie!
- 75 NC cities and towns issued proclamations for Lyme disease week
- Recent disclosure of another US syphilis experiment
- Institute of Medicine Hearings on Lyme disease
- 19,400 deer crashes in state last year
- Virginia's governor has set up a Lyme disease task force
- New research articles, including ones from NC and Alabama

Quote of the month…

(The Lyme disease)…" surveillance case definition was developed for national reporting of Lyme disease. It is not intended to be used in clinical diagnosis." From the CDC 2008 Case Definition and **missing** from the 2011 Case Definition

STATE VECTOR-BORNE DISEASE TASK FORCE MEETING SCHEDULE

Jan. 31st 9:30-12:30PM Monday
April 1st 9:30-12:30PM Friday
July 1st 9:30-12:30PM Friday **or** July 25th 9:30-12:30PM Monday
November 4th 9:30-12:30PM Friday.
NOTE: **ACTUAL MEETING TIME IS 10-12** BUT ROOM IS OPEN LONGER FOR GATHERING.
These meetings will be in room 1A224 at 2728 Capital Blvd. Folks are not to park in the front visitors spaces if they will be in the building longer than two hours…building management will have them towed

The state has recently revised their tick-related brochures. Another revision is due soon. They can be accessed at: http://www.deh.enr.state.nc.us/phpm/brochures.htm

MAKING WAVES FOR TIC-NC

Howie Neely, an employee of Weyerhaeuser based in Elkin, NC, was diagnosed with Lyme disease by his cardiologist. With the help of his wife, he set about raising money for TIC-NC as soon as he recovered sufficiently from his illness. To that end, Howie participated in an across the state bike ride to raise funds as well as applying for a grant from *Weyerhaeuser*. He called his program "Making Waves for TIC-NC."

Howie's Lyme disease was apparently contracted while hiking on the Appalachian Trail in NC. In spite of not being quite back to his old self, he is our biggest fund raiser. To date, Howie has contributed over $400 in donations from friends and colleagues to TIC-NC! We will keep you posted about the grant.

THANK YOU, HOWIE!

Howie at the bike event

Elkin Community Park, Elkin, NC, 10/23/10

75 LYME DISEASE AWARENESS PROCLAMATIONS ISSUED IN NORTH CAROLINA IN 2010

Lt. Col. Tierney of Cary and other Lyme disease activists received 75 proclamations this year, with every town in Wake County participating. (Note, the state has declared Wake County endemic for Lyme disease.)

The 75 towns are:
Angier, Apex, Asheboro, Bayboro, Benson, Boone, Burlington, Carolina Beach, Carrboro, Cary, Caswell Beach, Concord, Durham, Emerald Isle, Fuquay-Varina, Garner, Granite Quarry, Greensboro, Greenville, Harrisburg, Havelock, Hendersonville, High Point, Hildebran, Hillsborough, Holly-Springs, Huntersville, Indian Trails, Jacksonville, Kill Devil Hills, Knightdale, Kure Beach, Leland, Liberty, Matthews, Middlesex, Mint Hill, Morehead City, Morrisville, Mount Airy, North State, North Topsail Beach, Oak Ridge, Pineville, Pittsboro, Raleigh, Roanoke Rapids, Rocky Mount, Rolesville, Selma, Seven Devils, Shelby, Smithfield, Statesville, Summerfield, Surf City, Swansboro, Tarboro, Thomasville, Troutman, Valdese,

Village of Clemmons, Wake Forest, Washington, Wendell, Wentworth, White Lake, Winston-Salem, Winterville, Yanceyville, Youngsville, and Zebulon.

This represents a lot of great work!

TIC-NC and the STAMP OUT TICK DISEASE/TICK SAFTEY BOOTH, October 2010, Chapel Hill

The Walk for Education at the Lincoln Community Center on Oct 23 allowed the opportunity for the debut of board member Carol Clark's Stamp Out Tick Disease/Tick Safety Booth. The booth was created to increase education about tick disease and promote behaviors that would lessen the chance of a tick exposure. One goal was to teach children what to do if they find a tick on them-mainly to stop what they are doing and tell an adult to ensure prompt removal of the tick and awareness of the tick exposure. The booth was well received by the public. Parents showed a strong interest asking what to do if a tick exposure occurred and showing surprise about how small ticks could be depending on the type and life stage. Ms. Clark was asked to continue her education about ticks among area school's outreach programs, which will reach many families in the coming months. Thank you, Carol!

Two of Ms. Clarks' displays

Please don't feed the ticks!


Repellents and exposure information for kids

TIC-NC spoke at a Chapel Hill Garden Club

Members of this garden club live within city limits and all reported deer rampaging through their yards and, as a result, all were having a hard time gardening. All but one attendee had received numerous tick bites and several had been ill from tick-borne infections.

PAPER ON THE STARI STUDY IN NORTH CAROLINA

Practice-Based Research Network Partnership with CDC to Acquire Clinical Specimens to Study the Etiology of Southern Tick-Associated Rash Illness (STARI)
Meagan F. Vaughn, MS, Philip D. Sloane, MD, MPH, Kyle Knierim, MD, Dax Varkey, Mark A. Pilgard and Barbara J. B. Johnson, PhD
The Journal of the American Board of Family Medicine 23 (6): 720-727 (2010).

Full text, freely available:
http://www.jabfm.org/cgi/content/full/23/6/720
This paper describes the study's methodology, there is still no answer to the Lyme-like disease that people may acquire from lone star ticks.

NORTH CAROLINA TICK STUDY PUBLISHED OCTOBER 2010

Borrelia species in Ixodes affinis and Ixodes scapularis ticks collected from the coastal plain of North Carolina. Ricardo G. Maggi, Sara Reichelt, Marcee Toliver and Barry Engber *Ticks and Tick-borne Diseases*, published online before print on October 20, 2010.
http://dx.doi.org/10.1016/j.ttbdis.2010.08.003

Abstract
Ixodes affinis and *I. scapularis* are tick species that are widely distributed in the coastal plain region of North Carolina. Both tick species are considered enzootic vectors for spirochetal bacteria of the genus Borrelia and specifically for *B. burgdorferi* s.s., the pathogen most often attributed as the cause of Lyme disease in the USA.

Laboratory testing of individual *I. affinis* and *I.scapularis* ticks for the presence of Borrelia DNA was accomplished by PCR, targeting 2 regions of the 16S-23S intergenic spacer. In *I. affinis*, Borrelia DNA was detected in 63.2% of 155 individual ticks. *B. burgdorferi* s.s. and *B.bissettii* were identified by DNA sequencing in 33.5% and 27.9% I. affinis, respectively. Statistical differences were found for sex distribution of Borrelia DNA between *I.affinis* females (76.8%) and *I. affinis* males (55.6%) where *B. burgdorferi* s.s. was more prevalent in females (44.6%) than in males (27.3%). In I. scapularis, 298 individually tested ticks yielded no Borrelia PCR-positive results.

This study found a higher incidence of Borrelia spp. in *I. affinis* collected in coastal North Carolina as compared to previous reports for this tick species in other Southern states, highlighting the potential importance of *I. affinis* in the maintenance of the enzootic transmission cycle of B. burgdorferi s.l. in North Carolina. The lack of Borrelia DNA in *I. scapularis* highlights the need for additional studies to better define the transmission cycle for *B. burgdorferi* s.s. in the southeastern USA and specifically in the state of North Carolina.
http://dx.doi.org/10.1016/j.ttbdis.2010.08.003

SCIENCE WRITER PAM WEINTRAUB SPEECH AT THE IOM HEARINGS October 11, 2010

Pamela Weintraub's stirring speech at the Institute of Medicine's state-of-the-science Lyme workshop brought a standing ovation from the audience, and spirited discussion from Panelists.

Read the full text of her speech and comments:
http://www.lymedisease.org/news/lyme_disease_views/592.html

2010 INSTITUTE OF MEDICINE HEARINGS & CHRONIC LYME DISEASE

Nature 11.14.10, News **Scientists push for Lyme disease trials: Confusion over correct treatment for persistent symptoms clouds conference.**

by Amy Maxmen

The symptoms of Lyme disease, spread by ticks, can persist even after treatment with antibiotics.

Doctors and researchers in the United States have spoken out about the lack of support provided by the Institute of Medicine (IOM) and the National Institutes of Health (NIH) when it comes to treating patients with chronic Lyme disease.

The remarks were made at a workshop organized by the IOM in Washington DC on 11 and 12 October.

"Our session wasn't supposed to talk about treating chronic Lyme," says Sam Donta, an infectious disease specialist at Falmouth Hospital in Massachusetts who spoke at the workshop. "But when we had our pre-session conference call and they said this is supposed to be about diagnosis and management, I said how can you talk about management without talking about treatment?"

"The IOM overly restrict the definition of chronic Lyme disease," says Donta. "I hope now the IOM is finally listening."

The IOM will issue a report on gaps in the prevention, amelioration and resolution of Lyme disease and other tick-borne diseases, which will help to guide agencies such as the NIH.

Although the treatment of chronic Lyme disease has been controversial for decades, the IOM excluded the issue from their agenda at the request of the NIH.

There is widespread disagreement over what constitutes and causes the chronic disease, in which a range of symptoms persist after a patient has been treated for the initial bacterial infection. Names for the condition differ, but whether it's called chronic Lyme disease, post-Lyme disease syndrome (PLDS) or something else, patients can suffer from fatigue, pain, temporary paralysis, heart conditions and severe cognitive problems.

"Our patients with PLDS feel terrible, their lives have been disrupted immeasurably and they deserve answers," says Afton Hassett of the University of Michigan Medical School at Ann Arbor who spoke about biomarkers, which could be used to diagnose patients with chronic Lyme disease.

Many patients who have been diagnosed with chronic Lyme by their doctors do not meet the criteria set out by the Center for Disease Control and Prevention (CDC) for the disease.

Paul Mead, a medical epidemiologist at the CDC, says that he would welcome new insight that might contribute to better diagnoses and treatments for patients who don't meet the centre's current criteria. "There's no point in debating whether or not this is a real entity," he says. "The point is what is the best treatment."

But his words have not been met with financial backing. Controlled clinical trials testing long-term antibiotic therapy previously found that the antibiotic was no better than a placebo[1], and that intravenous antibiotic treatment might even be dangerous for some patients[2,3].

The Infectious Diseases Society of America recommends against treating chronic Lyme disease with antibiotics and some worry that the door to new trials has now been shut.

In his presentation, Brian Fallon of Columbia University in New York pointed out that, in the trial he led, patients in severe pain benefited from intravenous antibiotics. But, he added, those with low levels of pain fared no better than those given the placebo[3].

"This study has been significantly downplayed, and I think to the detriment of science because although it showed that IV antibiotics can cause significant risk, there was a greater improvement with the drug than with the placebo," he says. He added that more trials should focus on using safer antibiotics and non-antibiotic treatments.

The NIH does not fund trials on treating chronic Lyme disease and the IOM are hesitant to push for further studies on antibiotic treatments, says Fallon, because the jury is still out on whether chronic Lyme disease results from an extended inflammatory reaction to the Lyme bacteria — Borrelia burgdorferi in the United States — after it has been eradicated by a short course of antibiotics.

Yet Borrelia infections often persist in animals, say researchers at the workshop. Linda Bockenstedt of Yale School of Medicine in Connecticut presented images of non-mobile bacteria remaining in the tissues of mice long after they had been treated with antibiotics.

In March, the NIH, and specifically the National Institute of Allergy and Infectious Diseases (NIAID), charged the IOM with establishing a committee to analyze the state of science for tick-borne diseases. "The charges to this committee specifically request that we do not consider or discuss treatment guidelines and we will hold to that," says Lonnie King, chair of the IOM committee on Lyme disease and other tick-borne diseases.

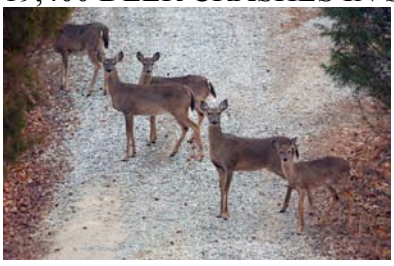
"NIAID viewed this meeting as providing a unique opportunity to bring diverse perspectives on the state of the science on Lyme and tick-borne diseases," said Jill Harper, chief of correspondence management at NIAID, in a statement to Nature. "Adding a complicated issue such as clinical treatment guidelines to the agenda might have diluted the scientific focus of the meeting."

Nonetheless, Monte Skall, executive director of the National Capital Lyme and Tick-Borne Disease Association, was pleasantly surprised that the IOM acknowledged chronic Lyme disease at the workshop. Three advocacy groups withdrew from the workshop before it started, accusing the IOM of bias against claims of chronic Lyme disease and the possibility that it can be treated with antibiotics. "It goes to show you, it's best to come to a conference like this with an open mind," Skall says. "We are hoping that out of this workshop comes a second workshop where we can talk about treatment." Published online 14 October 2010 | Nature | doi:10.1038/news.2010.542

1. Klempner, M. S. et al. N. Engl. J. Med. 345, 85-92 (2001).
2. Krupp, L. B. et al. Neurology 60, 1923-1930 (2003).
3. Fallon, B. A. et al. Neurology 70, 992-1003 (2008).

ARTICLE ON DEER IN NEWS & OBSERVER, November 10, 2010

19,400 DEER CRASHES IN STATE LAST YEAR



State Farm Insurance Agency says your odds of hitting a deer in North Carolina are 1 in 147. That's up from last year, when it was 1 in 150.

And statistically speaking, November has the most deer wrecks. Of the 19,400 deer crashes that occurred in the state last year, 4,200 happened in November, according to Eric Rodgman, a senior analyst with the UNC Highway Safety Research Center.

Read more: http://www.newsobserver.com/2010/11/10/792594/looking-for-love-deer-get-up-in.html#storylink=misearch#ixzz151fVP9bB

ANOTHER SHAMEFUL US SYPHILIS EXPERIMENT

U.S. sorry for Guatemala syphilis experiment

By CBC News, October 1, 2010

The U.S. government has apologized for experiments during the 1940s in which government researchers used prostitutes to deliberately infect Guatemalan prison inmates with syphilis.

U.S. Secretary of State Hillary Clinton and Health and Human Services Secretary Kathleen Sebelius issued a joint statement Friday on the 1946-48 study they called unethical.

"Although these events occurred more than 64 years ago, we are outraged that such reprehensible research could have occurred under the guise of public health. We deeply regret that it happened, and we apologize to all the individuals who were affected by such abhorrent research practices."

Medical historian Susan Reverby of Wellesley College in Massachusetts uncovered the experiment. It apparently was conducted to test the effectiveness of penicillin, which was relatively new then, in treating sexually transmitted diseases.

"In addition to the penitentiary, the studies took place in an insane asylum and an army barracks," Reverby said in a release.

"In total, 696 men and women were exposed to the disease and then offered penicillin. The studies went on until 1948 and the records suggest that despite intentions not everyone was probably cured."

The researchers induced the disease by allowing inmates in the central penitentiary to have sex with infected prostitutes [which was legal in Guatemala], or gave the disease to the prisoners by inoculating their arms, faces or penises with a solution of the bacteria that causes syphilis.

Researchers are organizing a case review to see if people involved in the study, and their contacts, are still alive. If so, they may have passed on the disease.

Current regulations for U.S.-funded human medical research prohibit these kinds of "appalling violations," the government statement said.
http://www.cbc.ca/health/story/2010/10/01/syphilis-guatemala.html

13 STRAINS OF THE LYME BACTERIA GENOME DECODED

Scientists Decode Lyme Disease Genome

Male and female ticks that can spread Lyme disease. (AP Photo)

(CBS) 10.8.2010 Are better treatments for Lyme disease on the horizon? Things are looking up, scientists say, thanks to new research into the genetic make-up of the bacteria that cause the tick-borne illness.

The research yielded complete genetic blueprints of the 13 different strains of bacteria that cause Lyme, according to a statement released by the University of Medicine & Dentistry of New Jersey, where the research was conducted.

In addition to leading to new treatments, scientists at the university say the decoded genome could speed development of new ways to prevent and diagnose Lyme disease.

The disease, which has become more prevalent in recent years, can affect the nervous system, heart, skin and joints. Early symptoms include chills, fever, lethargy, and a bulls-eye rash at the site of the tick bite.

Some Lyme patients fare worse than others - perhaps, scientists say, because some Lyme bacteria are more virulent.

"We wanted to find out why and how to identify this property," lead researcher Dr. Steven E. Schutzer said in the statement.

The research was published online in the Journal of Bacteriology.

ARTICLE FROM ALABAMA NEWSPAPER ON LYME DISEASE AND STARI

Are we missing most cases of Lyme disease in Alabama? by Jason Bacaj
jbacaj@annistonstar.com October 26, 2010

Ticks crawled all over Damien Willis during the year he dragged a nine-square-foot white cloth through the leaf litter around Coleman Lake.

Willis was collecting ticks for a study on how forest fires impact population levels and the presence of the bacterium suspected to cause Lyme disease in the South.

“It would blow your mind how well it works,” Willis said about the cloth’s effectiveness at harvesting ticks.

He swooped up 485 ticks with the cloth, finding that tick populations rebounded two years after a burn. He also found himself with Lyme disease.

“There’s no doubt. I was getting covered in larval ticks, sometimes a couple hundred on me at one time,” Willis said. “As soon as I started showing symptoms I knew what it was.”

But Willis never tested positive for Lyme disease, because doctors in Alabama rarely perform the test due the fact that it almost never tests positive.

A Jacksonville State University genetics researcher, Chris Murdock, is studying the DNA from ticks Willis collected and possibly working toward developing another test for diagnosing Lyme disease based on the presence of bacterial DNA. Murdock can identify the presence of Borrelia lonestari -– the spirochete bacterium he and others suspect caused Willis to develop Lyme-like symptoms.

The only hitch is that B. lonestari is not proven to cause Lyme disease.

A bull’s-eye rash is often the first sign of Lyme disease. Bacteria then infect the musculoskeletal system, causing muscles and joints to ache. Spirochetes can hide in the red blood cells only to show up later as a heart or neurological disorder, said Dr. Russell Ingram, who practices with Ladiga Medical in Jacksonville. Without immediate antibiotics it can become a chronic problem. Robert Carter, the JSU biologist who directed Willis’ study, has contracted the disease twice and has to take medicine daily.

Ingram believes the test doesn’t work in Alabama because it uses a strain of Borrelia burgdorferi –- the spirochete known to cause Lyme disease in the Northeast –- from New York, which doesn’t match the Southern strain, B.lonestari.

“We get a lot of patients with multitudes of neurological signs that may have it, but doctors are afraid to go on and treat without a definite diagnosis,” Ingram said. “We have to sort of take the bull by the horns sometimes, just treat the Lyme without the test.”

A host of ecological factors keeps B. burgdorferi from thriving in the South, according to the Centers for Disease Control and Prevention.

The major difference between the Northeast and the Southeast – besides the overabundance of deer – is the presence of lizards.

Ubiquitous throughout the South, lizards may be bitten by infected ticks, but B. burgdorferi

doesn't survive in them, said Barbara Johnson, lab chief in the CDC's Bacterial Diseases Branch Division of the Division of Vector-Borne Diseases. The pesky reptiles are an important food source for young ticks which, because they're deathtraps for B. burgdorferi, keeps the number of infected ticks low, Johnson said.

Deer ticks are the primary carriers of B. burgdorferi. The relatively low abundance of deer in the South cuts down on the chances of running across a deer tick in the Southern woods. Willis did not catch any deer ticks during his study.

A very similar spirochete bacterium, however, is present in ticks found throughout the South. Known as Borrelia lonestari for the lone star tick that carries it, the CDC once thought it was the cause of Lyme-like symptoms in the South.

But that enthusiasm has tempered after 10 years of inconclusive research.

"I consider that a dead end," Johnson said. "After looking by very, very sophisticated ways, we do not have evidence that it's infectious. Not all expanding rashes are associated with Lyme disease." But something is causing folks in Alabama to develop symptoms consistent with Lyme disease, doctors and researchers say.

Doctors in the area are told to administer Lyme disease treatment based on symptoms – not a positive Lyme disease test.

It's unlikely that Willis contracted whatever caused his bout of Lyme-like symptoms from B. burgdorferi because he was dealing almost exclusively with lone star ticks. Lone star tick saliva has an enzyme in it that breaks down B. burgdorferi, according to CDC research.

That leaves either B. lonestari or an undiscovered bacterium as the source of Lyme disease symptoms in the South. Murdock and others in the area feel the circumstantial evidence is convincing enough to continue searching for a definite link between B. lonestari and the southern strain of Lyme disease.

"For me, the jury's still out. I know that you have a bacterium that is very similar to (B.) burgdorferi, they're both spirochetes, they're both Borrelia," Murdock said. "I just have a hard time believing there's no Lyme disease down here."

Contact staff writer Jason Bacaj at 256-235-3546

AREAS WITH BUSH HONEYSUCKLE HAVE UP TO FIVE TIMES MORE DEER (AND THEIR TICKS) THAN AREAS WITHOUT

Invasive plants increase the risk of tick-borne disease in suburbs

October 11, 2010 By Diana Lutz

(PhysOrg.com) -- "You don't have to go out into the woods anymore," says tick expert Brian F. Allan, PhD, who just completed a postdoctoral appointment at Washington University in St. Louis. "The deer are bringing tick-borne disease to us." So, it stands to reason that anything deer like, might increase the risk of tick-borne disease for people.

The invasive plant bush honeysuckle, for example.

Yes, that leafy shrub with the lovely egg-shaped leaves on arching branches, fragrant white or yellow flowers and the dark red berries so attractive to birds.

Called bush or Amur honeysuckle, Lonicera maackii derives from the borders of the Amur River, which divides the Russian Far East from Manchuria. Its Latin name honors Richard Maack, a 19th-century Russian naturalist.

"I've spent a lot of time in honeysuckle," Allan says, "and I can tell you there are deer tunnels through it. So if you get down low, you can actually move through honeysuckle pretty efficiently. And you pick up a lot of ticks while you're back in there."

An interdisciplinary team made up of ecologists, molecular biologists and physicians from Washington University in St. Louis and the University of Missouri-St. Louis tested Allan's suspicions by experiment in a conservation area near St. Louis.

In this part of the country, the tick of concern is Amblyomma americanum, called the lone star tick because the adult female has a white splotch on her back. The tick-borne diseases are the ehrlichioses, caused by bacteria in the genus Ehrlichia, named for the German microbiologist Paul Ehrlich.

As Allan and his colleagues report this week in the *Proceedings of the National Academy of Sciences*, the density of white-tailed deer in honeysuckle-invaded areas was roughly five times that in areas without honeysuckle and the density of nymph life-stage ticks infected with bacteria that cause human disease was roughly 10 times higher.

Hard as it may be to believe, given the long chain of interactions needed to get there, the presence of bush honeysuckle substantially increases the risk of human disease.

"But that's exactly what is happening," says Jonathan M. Chase, professor of biology in Arts & Sciences and a collaborator on the project. The big question now, says Chase, who is also director of Washington University's Tyson Research Center, is whether what holds for honeysuckle holds for other invasive plants as well. "This may be something that's occurring quite broadly, but we're really just starting to look at the connection between invasive plants and tick-borne disease risk."

VIRGINIA TO SET UP TASK FORCE FOR TICK-BORNE DISEASE

The governor set up a task force for the tick-borne disease, which is on the rise in Virginia.

By Beth Macy, Roanoke Times, October 17, 2010

Gov. Bob McDonnell stepped into the contentious topic of Lyme disease Friday when he commissioned a task force to explore prevention and treatment of the disease.

The task force was announced by the secretary of health and human resources, Dr. Bill Hazel, who cautioned that Lyme is on the rise in Virginia. More than 1,000 cases have been confirmed statewide so far this year, 65 of them in the Roanoke and New River valleys.

The tick-borne disease has been on the upswing in Northern Virginia and Hampton Roads in recent years. It wasn't until June that the state health department held a news conference to alert Western Virginia about the spread of Lyme, which is transmitted by black-legged deer ticks.

The announcement thrilled Monte Skall, president of the McLean-based National Capital Lyme and Tick-Borne Disease Association. "I think the intentions of the task force are in the right place," Skall said.

Her group unsuccessfully lobbied the Virginia General Assembly for legislation that would have protected so-called "Lyme-literate" doctors who prescribe long-term antibiotics to patients they diagnose as having chronic Lyme -- a physically and neurologically crippling illness that occurs when acute Lyme isn't treated early or strongly enough, they say.

But most mainstream medical practitioners dismiss the disease, cautioning that long-term antibiotic treatments are ineffective and dangerous. They argue that research -- not politics -- should dictate treatment.

"The disease is not medically proven," said Dr. Stephanie Nagy-Agren, an infectious disease specialist at the Veterans Affairs Medical Center in Salem. "I think chronic Lyme seems to be an idea that's infectious."

While New River Health District Director Dr. Jody Hershey cautions that acute Lyme is on the rise, he, too, argues that current evidence-based research doesn't support the treatment of chronic Lyme with long-term antibiotics.

"Perhaps more research will come out later on, but, for now, we have to use the scientific data we have," he said.

Del. Tom Rust, R-Fairfax County, who sponsored the doctor-protection bill, said he hopes the task force will help him build support for the bill, which he plans to reintroduce, with revisions, next session.

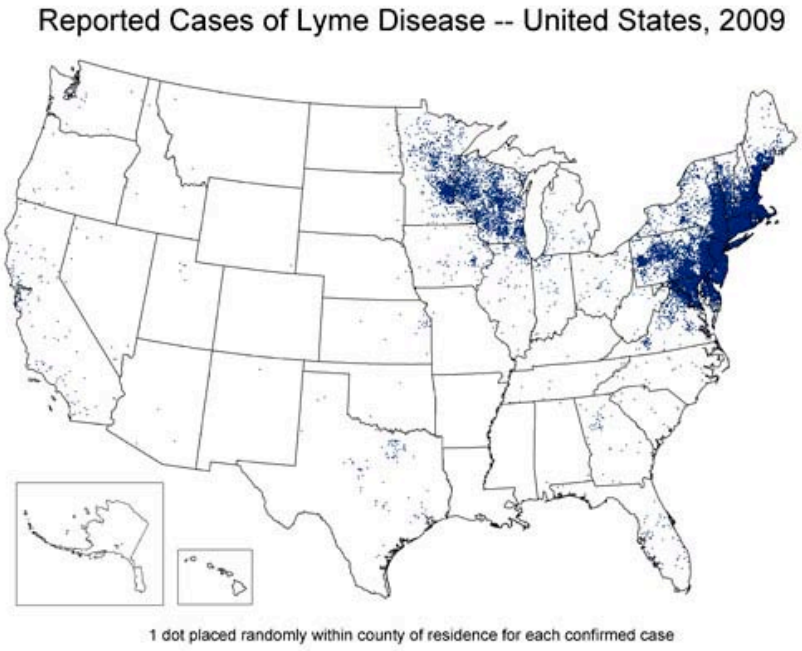
"I suspect it will become a huge thing here," Rust said, as it has in Connecticut, Rhode Island, Massachusetts and California -- other states that passed doctor-protection laws. "People are passionate about it. They have folks with serious illnesses who don't feel they're being treated properly, and it's not going to go away." As Pearisburg Lyme-patient advocate Mauricia Shanks puts it: "No one's sympathetic until they've watched a loved one go through the misery of Lyme disease."

SEX DIFFERENCES IN LYME DISEASE TEST RESULTS

Sex differences in the clinical and serologic presentation of early lyme disease: Results from a retrospective review. Schwarzwalder A, Schneider MF, Lydecker A, Aucott JN.
Gender Medicine, 2010 Aug;7(4):320-9. http://dx.doi.org/10.1016/j.genm.2010.08.002

Abbreviated Abstract.
Background: Lyme disease is the most common vector-borne disease in the United States. Few studies have explicitly examined sex-based differences in the clinical presentation of or serologic response to early Lyme disease.
Objective: This study retrospectively examined clinical and serologic differences by sex among a community case series of patients with a current or past episode of confirmed early Lyme disease.
Methods: Patients were enrolled from August 2002 to August 2007 meeting criteria for a current or past episode of confirmed early Lyme disease were enrolled from August 2002 to August 2007. All serologic tests were drawn within 3 months of illness onset and interpreted using CDC criteria.
Results: In a total of 125 patients, there were no significant differences in clinical presentation by sex. The initial self-misdiagnosis rates for men and women were 10% and 18%, respectively (P = NS). Among the 62 patients with a serologic test as part of their clinical evaluation, 50% of men had a positive, 2-tier result compared with 32% of women (P = NS).
Conclusions: In this small, retrospective sample, we found evidence for sex-based differences in the magnitude of ELISA and IgG serologic response to early Lyme disease. Such differences could have implications for appropriate diagnosis, treatment, and disease classification. Larger prospective studies are needed.

2009 LYME DISEASE INCIDENCE MAP FROM THE CDC (most recent available)



INSECT SHIELD INFORMATION AND FORM FOR GETTING CLOTHES TREATED

What is Insect Shield? - from their website www.insectshield.com
Insect Shield Repellent Apparel and Insect Shield Repellent Gear are revolutionary products designed to provide long-lasting, effective and convenient personal insect protection… Recently, EPA has granted Insect Shield extended durability claims for its apparel registration, through 70 washings… (The) proprietary formulation of the insect repellent permethrin results in effective, odorless insect protection that lasts the expected lifetime of a garment.

Which insects does Insect Shield repel?
Insect Shield Repellent Apparel has been proven and registered to repel mosquitoes, ticks, ants, flies, chiggers, and midges (no-see-ums).

To purchase Insect Shield clothing:
www.insectshield.com/work
www.insectshield.com/camp

Get a free treated bandana if you become a Facebook fan. Simply go to:
www.facebook.com/insectshield

And click on the “Like” button then email their mailing address to marketing@insectshield.com

Send off your own clothes for treatment:
The form is attached. Pricing:1 Item of Clothing -- $9.95/piece3-19 Items -- $8.33/piece20 or More Items -- $7.95/piece plus shipping. (current prices)

TIC-NC is grateful for the financial contributions of Insta-Shield, Inc.

Tick-Borne Infections Council of North Carolina is a non-profit organization formed to improve the recognition, treatment, control, and understanding of tick-borne diseases in North Carolina. We are all-volunteer and appreciate donations.