

Legislative History for Connecticut Act

**PA 14-214**

SB438

House	6959-6962	4
Senate	2239-2245, 2343-2344	9
<u>Public Health</u>	<u>3861-3899, 4200-4231</u>	<u>71</u>
		<b>84</b>

**H – 1201**

**CONNECTICUT  
GENERAL ASSEMBLY  
HOUSE**

**PROCEEDINGS  
2014**

**VOL.57  
PART 21  
6912 – 7260**

Those absent and not voting 6

DEPUTY SPEAKER GODFREY:

The bill, as amended, is passed.

Representative Aresimowicz.

REP. ARESIMOWICZ (30th):

Thank you very much, Mr. Speaker.

Mr. Speaker, I move that we immediately transmit to the Senate any items waiting further action.

DEPUTY SPEAKER GODFREY:

Without objection, so ordered.

Representative Aresimowicz, I understand we have another Consent Calendar.

REP. ARESIMOWICZ (30th):

Thank you very much, Mr. Speaker.

We are. We are about to list off the bills that will be included in our second Consent Calendar for the evening, sir.

DEPUTY SPEAKER GODFREY:

Proceed, sir.

REP. ARESIMOWICZ (30th):

Thank you very much, Mr. Speaker.

I move -- I'd to add the following to the Consent Calendar. Calendar 426, Calendar 308, Calendar 438, Calendar 488 --

SB 281

SB 19

SB 182

SB 330

DEPUTY SPEAKER GODFREY:

Whoa, whoa, whoa.

REP. ARESIMOWICZ (30th):

I apologize, Mr. Speaker. The first number was  
427.

DEPUTY SPEAKER GODFREY:

So 427, thank you, sir. Proceed.

REP. ARESIMOWICZ (30th):

Calendar 476, as amended by Senate "A"; Calendar  
445, Calendar 514, Calendar 505, as amended by Senate  
"A"; Calendar 455, Calendar 456, as amended by Senate  
"A"; Calendar 322, Calendar 536, as amended by Senate  
"A" and Senate "B"; Calendar 430, Calendar 520, as  
amended by Senate "A" and Senate "B"; Calendar 538, as  
amended by Senate "A"; Calendar 424, as amended by  
Senate "A"; Calendar 439, as amended by Senate "A";  
Calendar 482, as amended by Senate "A"; Calendar 325,  
as amended by Senate "A."

Calendar 526, as amended by Senate "A"; Calendar  
509, as amended by Senate "A"; Calendar 532, Calendar  
502, as amended by Senate "A"; Calendar 421, as  
amended by Senate "A"; Calendar 431, as amended by  
Senate "A"; and Calendar 539, as amended by Senate  
"A."

- SB 194
- SB 402
- SB 324
- SB 45
- SB 221
- SB 257
- SB 201
- SB 389
- SB 418
- SB 438
- SB 427
- SB 260
- SB 208
- SB 424
- SB 241
- SB 14
- SB 106
- SB 322
- SB 410
- SB 217
- SB 477
- SB 429

DEPUTY SPEAKER GODFREY:

Is there objection to any of these items being placed on the Consent Calendar? If not, Representative Aresimowicz, would you like to move passage of the Consent Calendar?

REP. ARESIMOWICZ (30th):

Mr. Speaker, I want to remove Calendar 539.

SB429

DEPUTY SPEAKER GODFREY:

Please remove Calendar 539, Mr. Clerk.

REP. ARESIMOWICZ (30th):

Mr. Speaker, I move passage of the bills on the second Consent Calendar of the day.

DEPUTY SPEAKER GODFREY:

The question is on passage of the items on Consent Calendar Number 2.

Staff and guests please come to the well of the House. Members take your seats. The machine will be open.

THE CLERK:

The House of Representatives is voting by roll.

The House of Representatives is voting by roll on the second Consent Calendar of the day, House Consent 2. Please report to the Chamber immediately.

DEPUTY SPEAKER GODFREY:

Have all the members voted? Have all the members  
voted?

If all the members have voted, the machine will  
be locked.

The Clerk will take a tally.

And the Clerk will announce the tally.

THE CLERK:

Consent Calendar Number 2.

Total Number Voting            147

Necessary for Passage            74

Those voting Yea                147

Those voting Nay                 0

Those absent and not voting      4

DEPUTY SPEAKER GODFREY:

The items on the Consent Calendar are passed.

(Speaker Sharkey in the Chair.)

SPEAKER SHARKEY:

The House will please come back to order.

Will the Clerk please call Emergency Certified  
Bill 5597.

THE CLERK:

**S - 675**

**CONNECTICUT  
GENERAL ASSEMBLY  
SENATE**

**PROCEEDINGS  
2014**

**VOL. 57  
PART 7  
1971 - 2310**

Mr. Clerk.

THE CLERK:

On page 4, Calendar 292, Senate Bill Number 438,  
AN ACT CONCERNING CERTIFICATION OF STROKE  
CENTERS, favorable report of the Committee on  
Public Health. There are amendments.

THE CHAIR:

Senator Gerratana.

SENATOR GERRATANA:

Good evening, Madam President.

THE CHAIR:

Good evening.

SENATOR GERRATANA:

Madam President, I move acceptance of the joint  
committee's favorable report and passage of the  
bill.

THE CHAIR:

Motion is on acceptance and passage. Will you  
remark, ma'am.

SENATOR GERRATANA:

Yes. Madam President, the Clerk has an  
amendment, LCO 4998, would he please call and I  
be allowed to summarize.

THE CHAIR:

Mr. Clerk.

THE CLERK:

LCO Number 4998, Senate "A," offered by Senator  
Gerratana and Representative Johnson.

THE CHAIR:

Senator Gerratana.

SENATOR GERRATANA:

Thank you, Madam President... I move adoption...

THE CHAIR:

Motion is on adoption. Will you remark, ma'am?

SENATOR GERRATANA:

Yes. Thank you, Madam President.

This amendment is a strike-all amendment replacing the underlying bill. In it we establish a task force to study stroke and this task force will be in the Department of Public Health, there are certain individuals who will be appointed to it. I hope that the chamber will adopt this amendment. Thank you.

THE CHAIR:

Will you remark? Will you remark?

Senator Welch.

SENATOR WELCH:

Thank you, Madam President. I do have a question or two to the proponent of the amendment. Through you.

THE CHAIR:

Please proceed, sir.

SENATOR WELCH:

Thank you, Madam President.

So it looks like we're thinking about adopting a task force at this point and time.

Through you, Madam President, who will be on that task force?

THE CHAIR:

Senator Gerratana.

SENATOR GERRATANA:

Yes. It begins line 14, the task force shall consist of the following members and these were agreed upon between the Department of Public Health and also the proponents for the legislation, two representatives for the American Academy in Neurology, two representatives of the Stroke Coordinators of Connecticut, two representatives of the Connecticut College of Emergency Physicians, a representative from the American Heart Association, a representative of the Connecticut Hospital Association and the commissioner of Public Health or her designee and two members appointed by the commissioner of Public Health, one member representing the Emergency Medical Services Advisory Board appointed by the Governor.

Through you, Madam President.

THE CHAIR:

Senator Welch.

SENATOR WELCH:

Thank you, Madam President, and thank you, Senator Gerratana, for sharing that with us. I think it's a very important issue to study with respect to Public Health in the state of Connecticut too often - too often, care providers do not recognize the signs of strokes and frankly don't take people necessarily to the right place to get treatment immediately. So, I think studying a prudent -- is a prudent approach to determining how primary care providers -- how emergency care providers should be addressing the situation. Thank you, Madam President.

THE CHAIR:

Thank you.

Will you remark? Will you remark?

.. .. And I'll try your minds on Senate "A." All those  
in favor please say aye.

SENATORS:

Aye.

THE CHAIR:

Those opposed.

Senate "A" passes.

Senator Gerratana.

SENATOR GERRATANA:

Thank you, Madam President. Madam President, I  
also have another amendment, LCO Number 5013.

THE CHAIR:

Mr. Clerk.

THE CLERK:

LCO Number 5013, Senate B, offered by Senators  
Gerratana, Welch, et al.

THE CHAIR:

Senator Gerratana.

SENATOR GERRATANA:

Thank you, Madam President. Madam President,  
this is addition -- an addition of course to the  
bill and the Department of Public Health has an  
Advisory Committee on Healthcare Associated  
Infections. This was established a number of

years ago and in that -- or on that Committee, you can find it on their website, they report and gather information and also report -- gather information I should say -- from Health Institutions and report on infections and other diseases that may have occurred in these institutions. In this, we are adding such language that each facility that does report will in a particular manner also report the number and type of infections including but not limited to the kind of infections that may occur and also the department shall post this information on an internet website regarding healthcare related infections. I hope that the chamber will see to adopt this amendment.

Thank you, madam.

THE CHAIR:

Thank you. Will you remark?

Senator Welch.

SENATOR WELCH:

Thank you, Madam President.

First, I just want to thank Senator Gerratana for bringing this amendment forward. This is a very important issue that, like stroke as well, needs, I think, the attention of not only the state but professionals within the state to make sure that we are making good policy decisions going forward especially dealing with such infectious diseases.

Thank you, Madam President.

THE CHAIR:

Thank you. Will you remark?

Senator Fasano.

SENATOR FASANO:

Thank you, Madam President. Madam President, I

want to thank Senator Gerratana and Senator Welch with respect to this amendment. You know, one of the things you hear when you go in the hospital is you want to get out as quickly as possible because of the infections in the hospital. And it's been a big problem and I think to have reports on it is significant.

There are cases -- currently, I know someone who may -- who is elderly and fighting some other -- which was a primary disease is now a secondary disease with the primary disease being the infection that she picked up at the hospital and probably will succumb to that infection based upon her immune system and her age. But the ability to report this may give us more of awareness and more of the ability ensure that we do something more dramatically to -- whatever we can to prevent these infections from exploding in our hospitals. I think this is a great first step, I appreciate the support from the chairs and ranking members, and look forward to its passage.

Thank you, Madam President.

THE CHAIR:

Thank you.

Will you remark? Will you remark?

If not, I'll try your minds, on Senate "B." All of them in favor, please say aye.

SENATORS:

Aye.

THE CHAIR:

Opposed.

Senate "B" is adopted.

Will you remark?

lgg/rd/cd  
SENATE

83  
May 2, 2014

002245

Senator Gerratana.

SENATOR GERRATANA:

Madam President, if there's no objection, I would  
like to move this item to Consent?

THE CHAIR:

Seeing no objections, so ordered.

Mr. Clerk.

THE CLERK:

On page 5, Calendar 298, Substitute for Senate  
Bill Number 470, AN ACT CONCERNING A STUDY OF THE  
ADMINISTRATIVE COST TO COLLECT TAXES AND FEES.  
favorable report of the Committee on Finance.

THE CHAIR:

Senator Looney.

SENATOR LOONEY:

Thank you, Madam President. That item might be  
passed temporarily.

THE CHAIR:

So ordered.

Mr. Clerk.

THE CLERK:

On page 7, Calendar 333, House Bill Number 5338,  
AN ACT CONCERNING THE ADMISSIBILITY OF RECORDS  
AND REPORTS OF CERTAIN EXPERT WITNESSES AS  
BUSINESS ENTRIES, favorable report of the  
Committee on Judiciary.

THE CHAIR:

Good Evening, Senator Coleman.

**S - 676  
CONNECTICUT  
GENERAL ASSEMBLY  
SENATE**

**PROCEEDINGS  
2014**

**VOL. 57  
PART 8  
2311 – 2667**

lgg/rd/cd  
SENATE

181  
May 2, 2014

THE CHAIR:

Senator McLachlan.

SENATOR MCLACHLAN:

Thank you, Madam President.

THE CHAIR:

Oops, I'm sorry, Senator McLachlan.

Senator Looney, why do you stand, sir?

SENATOR LOONEY:

Thank you, Madam President.

If this item might be passed temporarily. We will return to it shortly but first would ask the Clerk to read the items on the Consent Calendar so that we might proceed to a vote on the Consent Calendar.

THE CHAIR:

Mr. Clerk.

THE CLERK:

On today's Consent Calendar, page 4, Calendar 292, Senate Bill 438; on page 7, Calendar 335, House Bill 5149.

On page 12, Calendar 392, Senate Bill 261; Calendar 400, Senate Bill 155; Calendar 409, Senate Bill 491.

And on page 33, Calendar 45, Senate Bill 14.

On page 34, Calendar 130, Senate Bill 45; also on page 34, Calendar 133, Senate Bill 179; Calendar 100, Senate Bill 55.

On page 37, Calendar 195, Senate Bill 61; page 40, Calendar 271, Senate Bill 194; and on page 41, Calendar 285, Senate Bill 464.

lgg/rd/cd  
SENATE

182  
May 2, 2014

THE CHAIR:

Mr. Clerk, will you call for a roll call vote on the Consent Calendar. The machine is open.

THE CLERK:

Immediate roll call has been ordered in the Senate. Immediate roll call on the first Consent Calendar for the day has been ordered in the Senate.

THE CHAIR:

Have all members voted? All members voted. The machine will be closed.

Mr. Clerk, will you please call a tally on the first Consent Calendar?

THE CLERK:

On today's first Consent Calendar.

Total Number Voting	35
Necessary for Adoption	18
Those voting Yea	35
Those voting Nay	0
Those absent and not voting	1

THE CHAIR:

The Consent Calendar passes.

Senator Looney, shall we return to page 42?

SENATOR LOONEY:

Madam President.

THE CHAIR:

**JOINT  
STANDING  
COMMITTEE  
HEARINGS**

**PUBLIC  
HEALTH  
PART 9  
3651 – 4292**

**2014**

SENATOR GERRATANA: Actually, thank you for coming and testifying today. Would you be willing to work with the Connecticut Association of Addiction Professionals to help you get your license?

RENEA TIRRELL: Yeah. Yeah, of course.

SENATOR GERRATANA: You know, have some discussion with them. Certainly we're here to also assist and help if we can, but you know, since this happened last year and in the interim there may have been individuals who are affected.

I know I've had discussions with the organization. They said they have been working with individuals and helping them, you know, to meet the new standards, so of course I would encourage you, too, to approach them. I saw Miss Champion who testified today. I think she's the president or perhaps the past president now, but nope, she's still the president, so you might want to talk with her, too.

All right, well thank you.

RENEA TIRRELL: Thank you.

SENATOR GERRATANA: Thank you for coming and testifying. I don't think anyone else has questions.

RENEA TIRRELL: Okay. Thank you.

SENATOR GERRATANA: Next we go on to Senate Bill 438, Tim Parsons to be followed by Rom Duckworth.

TIMOTHY PARSONS: Good afternoon. Good afternoon, members of the Public Health Committee.

SENATOR GERRATANA: Good afternoon.

TIMOTHY PARSONS: My name is Dr. Timothy Parsons. I live in Cheshire, Connecticut. Thank you for the opportunity to testify in support of Senate

Bill 438 regarding certification of stroke centers.

I'm a board certified neurologist. I'm the Medical Director of the Stroke Center at the Hospital of Central Connecticut with campuses in New Britain and Southington and I'm here to talk about brains and strokes. That's what I do every day and I have some associates with me who are going to talk about the real nitty gritty data-based stroke situation in Connecticut right now.

I'm going to offer more of an overview and hopefully answer any medical questions that you may have.

Just to start with the very basics as I'm sure you know, a stroke is a type of brain injury. It's very common. It can be very devastating and a stroke can affect anything that any of us thinks or feels or does. It's anything that the brain can do to be affected by a brain injury like a stroke and I take care of stroke patients on a daily basis.

I've had six family members who have been affected by stroke, including all four of my grandparents, so I do have some familiarity with the issue.

Just rewinding a bit, the traditional approach to stroke management has been fairly hands off, that patients would come to the emergency department. They were given an aspirin. They would be transported to a quiet part of the emergency department and that was compassionate care and the best that we had for a very long time and unfortunately it led to attempts of fatalism and even that fatalism does seem to persist into the current day.

We now know that's not adequate, that's not sufficient to get people to their best level of function after a stroke, and a stroke now is, the standard is to be treated as a treatable emergency. Two million neurons per minute are lost from the moment that a stroke starts for hours afterwards and that this process can be interrupted if approached quickly, if caught, clot busting medication, if brain saving medications are given on time, that people are able to achieve better outcomes.

A system of care does need to be in place to be able to deliver this care quickly and effectively to every possible patient who can qualify for this therapy.

Because of my professional and personal experiences, I can say that the, from both sides of the white coat that there is an alarming lack of standardization how a stroke is approached in Connecticut and the country as a whole and that it depends very heavily at which hospital a patient is transported to or presents to on their own.

There are a couple maps, I'm not going to ask you to look at them now that the AHA has sent to you in their written testimony regarding how Connecticut hospitals are certified by accrediting bodies.

Up until last year, Connecticut Department of Public Health had certified the majority of Connecticut hospitals. Since they have withdrawn themselves from the stroke certification realm, only about half of Connecticut hospitals are stroke certified. Fourteen out of thirty are not overseen by any independent body and I'm not saying that they're doing a bad job delivering stroke care. It's just that there's no independent way to verify that they are doing the standard of care, which to put it bluntly,

certified stroke centers, medical evidence is very clear in showing that they save lives.

Like ST elevation heart attacks and trauma, a stroke is a special time-sensitive situation and that the earlier treated the better and stroke patients should be seen in centers that have experience in dealing with this and are overseen by a certified body.

SENATOR GERRATANA: Dr. Parsons, thank you for bringing your testimony to the Committee. Certainly, I was reading it on line also, you know, as you were speaking. It's extremely interesting and I wasn't even aware of what could be done, you know, currently and best modality, but we appreciate that.

Is there anything that you wanted to summarize? If not, I'll ask the Committee members if they have any questions.

TIMOTHY PARSONS: No, I think that the summary would be that every stroke patient deserves outstanding care and nobody deserves less than the standard of care.

SENATOR GERRATANA: Thank you. I agree.  
Representative Srinivasan.

REP. SRINIVASAN: Thank you, Madam Chair. Thank you, Dr. Parsons for being here this afternoon.

TIMOTHY PARSONS: Thank you.

REP. SRINIVASAN: Just educate us on the process of how a stroke center at this point in time is certified as a center. You said some of them are and some of them are not. So who is overseeing them and giving you the stamp of approval that this particular hospital is a stroke center?

TIMOTHY PARSONS: Right now in Connecticut, the 16 hospital centers that are accredited are accredited by the Joint Commission. There may be other certifying centers, certifying agencies that I'm not personally aware of. That may be a better question for the stroke coordinators who are going to testify. I would defer that to them about whether there are others that are available.

I'm not personally wedded to the Joint Commission. I don't think that using them should be mandatory, but I do think some sort of accrediting body should be used. So the process is to apply to the Joint Commission, have an inspector come on site for one, perhaps two days. They do chart reviews. They speak to staff at random. They interview patients who are on the floor who are hospitalized with strokes and offer recommendations for how the hospital process can be improved for the next time.

REP. SRINIVASAN: Thank you for that clarification. So the hospitals that are not at this point in time in Connecticut approved as stroke centers, they, as you said, you're not doubting their services or questioning their services, but they have not gone through this oversight and they've not gone through maybe the Joint Commission or some other commission to get the proper credit.

TIMOTHY PARSONS: Exactly. And there's, I don't want to pick on any specific hospital that is doing a better than average or worse than average job. I just think that in something as serious as stroke, where major disability can be averted or eliminated entirely, that a hospital should be able to demonstrate to an independent body that they are doing the standard of care and doing everything they can to treat stroke patients effectively.

REP. SRINIVASAN: Thank you. My final question to you is, in this day and age where the hospitals being equipped as well as they are and as sophisticated as they are, would there be any reason at all that any hospital would not be a stroke certified hospital?

TIMOTHY PARSONS: I think that the main barriers would be that a CT scanner is required 24 hours, 7 days a week. That has to be operational to treat stroke patients effectively. You simply cannot give these clot-busting medications without a CT scan done first, and having an operational CT scanner is a major logistical barrier for some hospitals. That's certainly not a majority of hospitals. The vast majority now have CT scanners, 24 hours.

Access to a neurologist who can help make TPA decisions has traditionally been a limiting factor but teleneurology is now very widespread and I think that that barrier has basically fallen.

REP. SRINIVASAN: Thank you. So the availability of the CT scan 24/7 being a functional operation so on and so forth, in your opinion, there can be others as you said, can be relatively resolved easily the availability of a neurologist and the clot-busting medications. So that is the big difference between a center that is stroke certified and capable of treating these emergencies compared to the other ones?

TIMOTHY PARSONS: Yeah. I would say that a CT scan being operational is a necessary step in evaluating stroke patients. You cannot even give aspirin safely without getting a CT scan first.

REP. SRINIVASAN: Thank you. Thank you very much. Thank you, Madam Chair.

SENATOR GERRATANA: Thank you, sir. Are there, Representative Sayers.

REP. SAYERS: Thank you. I guess, if not all hospitals in the state have the possibility of becoming stroke certified, how would you ensure that someone gets to a hospital that is stroke certified? I mean in some cases it's real easy where there's more than one hospital in Hartford. Obviously, unless the patient has a specific choice it's whatever has the least wait time.

TIMOTHY PARSONS: Uh-huh.

REP. SAYERS: But otherwise than that, how would you ensure?

TIMOTHY PARSONS: That is definitely an issue. With it being so time sensitive and transportation certainly does become an issue, there are ways in which patients can be transported beyond ambulance. The Life Star helicopter is one idea. It is easy when there are nearby hospitals that patients could be brought directly to by EMS.

In areas of less population density that is definitely a concern, but I still think that getting CT scan early will dictate everything from aspirin management to blood pressure management and even a prolonged transportation time is probably in the patient's interest.

REP. SAYERS: So it sounds like in certifying that we really need to look like that aspect that they get to the right hospital because what happens when someone goes to a hospital that's not stroke certified and then they end up needing to be transported again to get adequate treatment?

TIMOTHY PARSONS: Well, as I said with ST elevation heart attacks and trauma there are already what they call scoop and run protocols where if someone presents to the hospital and the

201  
pat/gbr PUBLIC HEALTH COMMITTEE

March 19, 2014  
10:30 A.M.

hospital is not equipped or prepared to take care of that person they are rapidly transported somewhere that can.

REP. SAYERS: So this might be something we want to add to that protocol.

TIMOTHY PARSONS: This is definitely something that timing is an important part of stroke care.

REP. SAYERS: Okay, thank you.

SENATOR GERRATANA: Thank you. I guess we're through asking questions at this time. Thank you so much for coming and testifying before our Committee. We do appreciate it.

TIMOTHY PARSONS: Thank you for your time.

SENATOR GERRATANA: Thank you, Dr. Parsons. Next is Rom Duckworth followed by Dawn Beland. Good afternoon.

ROM DUCKWORTH: Good afternoon, Senator Gerratana and distinguished members of the Public Health Committee. My name is Lieutenant Rom Duckworth and I'm here today to ask for your support for Senate Bill 438.

I'm now in my 21st year as a paramedic in the State of Connecticut and in that time I've had the opportunity to care for stroke patients in all different kinds of EMS systems, in all the different corners of the state.

Before I was an EMT, I first learned about stroke firsthand when my grandfather had one. I know now that stroke's the leading cause of disability in North America but when I was a teenager I got to see that disability personally and I learned that when a patient has a stroke, the signs and symptoms will be there but they're not always obvious.

This is why EMS providers in Connecticut need a validated stroke assessment tool to ensure that a patient having a stroke isn't missed by EMS just because they're presenting a little bit differently than expected.

Because of this experience I've had from my grandfather and subsequent experience stroke patients that I know, as an educator I teach about stroke a little bit differently than a lot of other educators. I like to emphasize that it's not a matter of life and death, because I honestly feel that it's an over-simplification when you understand the process of stroke and the new tools that are available for us to treat.

It's not simply a matter of doing something right and the patient lives or failing that and they die. As a stroke patient waits definitive treatment a minute goes by and brain cells die and those brain cells may hold that person's memory of their first kiss.

When more brain cells die as more minutes go by and we miss opportunities and those brain cells may hold that person's ability to walk or talk or care for themselves. It's not just a matter of brain cells, it's a matter of sections of the person's lives.

That's why I say it's crucial for providers across the spectrum of stroke systems of care to have the tools they need to grasp every single opportunity to save each part of these patient's lives.

In recent years I've had the opportunity as an educator to speak with EMS and healthcare providers in all different parts of the country and I've used this opportunity to share some of what we do really well in Connecticut and to learn from them to bring back home.

One of the most important things that I've learned is the importance of having an organized and defined stroke system of care to help EMS providers and not simply get stroke patients to a hospital, but to get to the care.

It's important for our EMS providers to understand that the best thing for a patient won't necessarily be to bring the patient to their favorite hospital or a nearby hospital or even a great hospital, but to deliver to the stroke care that they require.

Delivering a patient to the right care for a trauma patient, that means getting them to trauma surgery. For a cardiac patient, that may mean getting them to a cardiac cath lab. For a stroke patient that means getting them to a certified stroke center.

We need a clear way for EMTs and paramedics to be able to identify strokes and care for stroke patients. We need a way for EMS to hand stroke patients over to a stroke team at a designated stroke care center for definitive care.

We need the structure of a defined stroke system of care in Connecticut and that's why we need you to pass Senate Bill 438.

SENATOR GERRATANA: And thank you, sir. Thank you for coming and bringing your testimony before our Committee. We certainly appreciate it. Are there any questions? Representative Srinivasan.

REP. SRINIVASAN: Thank you, Madam Chair. Good afternoon. Thank you for coming here for the testimony and you did a phenomenal job in your presentation, and my question to you is, I get that part about the need for being transported to the stroke center, as you very appropriately said, not your favorite hospital, not the hospital by religion, not a hospital that's

around the corner but the one that is going to take care of that medical condition.

ROM DUCKWORTH: Yes.

REP. SRINIVASAN: That is, you know, you said that very well and so did the previous speaker before you.

My question to you is, as a paramedic over these years and with the changing landscape of medicine, how do the paramedics stay on top of things that when they see the patient when. who they're responding to, obviously the first line of protection as far as the patient is concerned or the family, that this is what the patient has because they may not be presenting with typical symptoms. You have obviously the entire spectrum of the atypical symptoms and in that case, what is the education process that is critical to the paramedics so that they make the right decision that this patient has to be transported to a stroke center.

ROM DUCKWORTH: I'm very glad that you asked that question because one, again, there are a variety of different agencies and organizations that can designate stroke care and certainly their requirements vary from one to another.

But one that's common through virtually all of them is a required component of EMS integration and EMS education. So in other words, the very stroke centers that we're talking about are required to ensure that that information is provided to the paramedics and EMTs and first responders on a regular basis, and that's something that is otherwise, otherwise can be hit or miss in other systems.

Certainly with a wide variety of systems in some more rural areas that we have in Connecticut it's very difficult to disseminate that

information and that's why this designation encompasses so much more than just the in-hospital portion of it, but making sure that the first responders are educated as to primarily, I like to call it identifying strokes. Not just assessing strokes, but taking something that may be a vague complaint of I don't feel well and being able to identify that as a potential stroke and then integrating with a stroke center, certified or designated at whatever level to make sure that that patient is getting that further assessment in whatever treatment might be necessary.

REP. SRINIVASAN: Thank you very much. In a very appropriate way you connected the two parts that there be, like in my mind, as to how the education for the first responder as you said and then of course, taking them to a certified center. Thank you very much. Thank you, Madam Chair.

SENATOR GERRATANA: Thank you. Are there any other questions? Thank you very much for coming today and presenting your testimony. We do appreciate it.

ROM DUCKWORTH: Thank you for your time.

SENATOR GERRATANA: Thank you. Next is Dawn Beland followed by Kristen Hickey.

DAWN BELAND: Good afternoon.

SENATOR GERRATANA: Good afternoon.

DAWN BELAND: Senator Gerratana and members of the Public Health Committee. My name is Dawn Beland. I'm a resident of Burlington, Connecticut. I'm a nurse. I am a member of the Connecticut Stroke Coordinators Group and I am the Stroke Center Coordinator at the Hartford Hospital, here in Hartford, which is now a Joint

SB438

Commission certified Comprehensive Stroke Center.

I'm here today to ask for your support of Senate Bill 438. Since the days when we began as a stroke center back in 2001, the science and technology and the treatments for a stroke have considerably changed.

For example, what Dr. Parsons alluded to in treatment is the administration of thrombolytics or TPA and it's not just that those need to be given now but the standard of care is that it needs to be given within 60 minutes of the patient's arrival.

To do so, the hospital really needs to be organized and ready to deliver the care whenever that patient shows up. Recognition and pre-arrival by EMS research shows us has really been able to facilitate this care. Building a statewide system for Connecticut that links EMS and stroke capable hospitals would help to ensure consistent delivery of appropriate therapies and standardized care.

Just this morning I was out teaching a paramedic refresher class on neurologic emergencies that covered strokes and hemorrhages as well, so, you know, we're linking ourselves together in this action.

Demonstrating the support of this whole concept, the Department of Public Health wants to volunteer the program to designate Connecticut hospitals as primary stroke centers back in 2007. The DPH gathered over 85 providers from various centers and through that effort we produced a Connecticut comprehensive plan for stroke prevention and care.

And the goal of the plan was two-fold as this bill is. To make sure that each individual has

access to appropriate and timely care and that each hospital has a coordinated system that involves their EMS providers and hospital stroke teams, stroke nursing unit and care protocols for diagnosis and treatment.

This plan was well received. It's been in action and it was well received by Connecticut hospitals and while many hospitals still sought Joint Commission certification the DPH program allowed more hospitals to implement stroke systems with care at their facilities, and that's important, that the program allows more hospitals. We're not asking for less, but more hospitals to implement stroke systems of care at their facilities.

Over the years, 23 hospitals in total went through this process to become DPH designated primary stroke centers. Some as I said, had Joint Commission as well and some attempted neither.

Unfortunately due to changes in funding that program ended in 2013 and due to resources, there's a potential that hospitals lose this capacity to approach a stroke, organize quick stroke evaluation and treatment.

So an effective and efficient system is needed in all of our communities to provide current, evidence-based treatment for patients with stroke.

We look forward to continuing to work with the Public Health Committee and other interested groups as we continue to refine and revise the language in the bill as it's currently written to create a plan that serves all of our communities well. Thank you.

SENATOR GERRATANA: Thank you. Are there any questions? If not, thank you very much for coming today and providing your testimony.

Next is Kristen Hickey followed by Charles, I can't read the handwriting, Wear, perhaps, Yale School of Medicine. No? There's a Charles, Wear, Wira, okay, sorry. Okay. Hi there.

KRISTEN HICKEY: Hi, how are you?

SENATOR GERRATANA: Good, how are you, Kristen?

KRISTEN HICKEY: I'm very good. I'd like to thank the Public Health Committee for allowing me to speak here today. My name is Kristen Hickey. I am a nurse. I am a member, or a resident of Wolcott, Connecticut and I'm the Stroke Coordinator at the Hospital of Central Connecticut which is the New Britain Campus, the Southing Campus at Bradley and also Mid-State Medical Center and I'm asking your support today for Raised Bill Number 438 an efforts to certify stroke centers in Connecticut.

A stroke, which you all know, is a blockage or a rupture of a blood vessel in the brain. It's the fourth leading cause of death in Connecticut and 1,400 residents in Connecticut die every year.

It's also the leading cause of disability and in 2008 the DPH estimated hospital care costs to be upwards of \$250 million.

Treatment is very time sensitive. As Dr. Parsons mentioned, two million brain cells per minute die with a stroke. So if we were to go to a coffee shop and wait five minutes for a cup of coffee, that would be appropriate.

But when you go to a stroke center or a hospital and you're waiting five minutes for stroke care, you're going to lose 10 million brain cells.

With treatment for stroke being so time sensitive you would think that every hospital had the capability of treating stroke patients in a rapid manner and that is just not the case.

I've been a stroke coordinator for seven years and I see on a daily basis the amount of improvement and coordinated care can actually improve patient outcome, they can improve quality of life. You have received testimony from Cynthia Rankin, who is the daughter of Elma Reese and she's a perfect example of this.

Elma Reese was an 83-year-old female who presented to our emergency department unresponsive, not moving her right side, unable to speak and unable to understand. She had rapid evaluation and rapid treatment and within 27 minutes received TPA.

Her improvements began within an hour. She was awake and then slowly her understanding and her movement in her right side came back. The next day she was able to speak and five days later she was discharged to home where she was able to care for herself. She could walk. She could talk. She could speak. She could understand. That's truly a TPA success.

Everyone should have the rapid treatment available to them but unfortunately this is not the case. Depending on where you live in Connecticut may affect how you would recover from a stroke. All hospitals are not prepared or capable of caring for stroke patients so rapidly.

TPA, the clot-busting drug is often not offered as a treatment, or used inappropriately in patients in Connecticut as my colleague will speak to next.

Connecticut's level of stroke care is not meeting national standards, unlike our neighbors of New York and Rhode Island.

So I'd just like to close with a couple of questions. As residents of Connecticut, do you know what hospital you would be brought to if you were having a stroke? Are they primary stroke center certified? Could they give you the best possible stroke care and in the time of need, would you want to take that chance? Thank you for your time.

SENATOR GERRATANA: And thank you very much for bringing your testimony here before our Committee. Does anyone have any questions? No. Thank you.

KRISTEN HICKEY: Thank you.

SENATOR GERRATANA: Next is Charles Wira, followed by Louise McNelly, I think.

CHARLES WIRA: Madam Chair and members of the Committee --

SENATOR GERRATANA: Good afternoon.

CHARLES WIRA: -- thank you for the opportunity to speak today on this very important issue and I am obviously in support of Senate Bill 438 as well.

My name is Charles Wira. I am a physician in emergency medicine at the Yale School of Medicine and also work for the Department of Neurology for the Yale Acute Stroke Service. I have been there for the past nine years and I'm a resident of Madison, Connecticut as well.

This issue before you today is of the utmost importance. The overarching EMS, my predecessors have stated in this bill is to get our residents in our state as quickly as

possible to the correct centers if they have the unfortunate circumstance of suffering an acute stroke.

If anybody in this room today had an acute stroke, we would all want the same treatment afforded to us, to be brought as quickly as possible to a hospital that can give us intravenous TPA as quickly as possible to open up the blood vessels. That gives the patient the greatest hope at full recovery of functional status.

At Yale School of Medicine and Yale-New Haven Hospital where I've worked over the course of the past nine years, over the past six months we have had four patients who have been missed opportunities for treatment interventions that have been transferred to us from outside community hospitals.

Two of these patients didn't receive any intravenous TPA. They would have been eligible. Two of these patients had more than two hour delays in administration of the treatment. It wasn't until they arrived at our hospital.

In each of these four cases, only one patient had a full recovery of symptoms and was able to walk out of the hospital, thus because of this, this is part of the underlying rationale for the support of our bill.

We wish, in this bill, to have legislation that mandates that patients will be brought to certified stroke centers, whether or not they are primary stroke centers, comprehensive stroke centers or acute stroke ready hospitals within our state.

We also are advocating for legislation that will empower the office of EMS to bring patients to certified hospitals within their region.

We thank you very much for the opportunity to present this bill today. We advocate for a stroke system's network to be set up whereas my predecessors mentioned, 24-hour access to CTs will be available, acute stroke team physician coverage will be available, there will be benchmarks that will be tracked and followed by outside regulatory bodies such as the Joint Commission or the Healthcare Facilities Accreditation Program which are nationally recognized bodies who certifies hospitals as acute stroke ready or primary stroke center hospitals. Thank you for the opportunity.

SENATOR GERRATANA: Thank you very much.  
Representative Cook has a question for you.

REP. COOK: Thank you, Madam Chair. Thank you, Doctor for your information and for bringing this to our attention.

You were discussing having stroke centers in regions. Do we as a state, or do you, where do we have stroke centers currently in the State of Connecticut:

CHARLES WIRA: We currently have stroke centers, once again in your packet is a map of the existing stroke centers in our state and there's an outlined yellow area demonstrating the 15-minute radius outside of these, and you'll see on that map that probably more than half of the state is not accessible to a certified stroke center.

REP. COOK: And what actually --

SENATOR GERRATANA: Excuse me, Representative Cook. Where would we find that map, because I'm not able to find it either? Is it, yes.

CHARLES WIRA: We can certainly get that to you as quickly as possible, Senator.

SENATOR GERRATANA: Okay. And that's here. Okay. Thank you very much. I'm sorry to interrupt. Go ahead, Representative Cook.

REP. COOK: Thank you. So we're talking about a window of 15 minutes, correct? Is that what you're saying?

CHARLES WIRA: We're talking about a radius of 15 minutes on the map, which is an estimate. But obviously some patients, some geographical areas may not have hospitals or free-standing emergency departments in their region so the transport time might be a little bit longer.

There may be other resources that are necessary. Certainly going back to the four cases that I had, in three of those cases, the patients were brought through a free-standing emergency department that was closer geographically to the patient's, but the primary stroke center was 45 minutes away.

So the net savings of time could have been 60 to 90 minutes had EMS diverted and gone directly to the primary stroke center rather than to the closest free-standing emergency department.

REP. COOK: So what would it take for a hospital who might not be that center, to at least have the ability to buy that time that we're talking about if we are within that, you are talking 15 minutes, some are 45 minutes. What would that hospital need to do? Can you explain the process if you have that stroke victim that needs to get to that center? Do you understand what I'm asking you?

CHARLES WIRA: Well, first and foremost, they have to network obviously as they are, but there is geographic variability with EMS services in that region. They have defined protocols set up that will direct EMS if they pick up a stroke

patients in a certain area to know in advance where they're going to be going, whether it's an acute stroke ready hospital, which could be a free-standing emergency department which has CT capacity, emergency physicians who maybe via telestroke or telemedicine link can administer the medications, or perhaps for that particular patient in a specified region, maybe they have to have a transport time that's a little bit longer to get to a certified center.

So one of the things that can be worked out through the Office of EMS is trying to come up with policies that will be established for each geographical region.

My understanding right now is that things are kind of left in the (inaudible) five regional district regions for EMS decisions, triage decisions, EMS bypass decisions.

REP. COOK: Thank you. Thank you, Madam Chair.

SENATOR GERRATANA: Thank you. No, I haven't found the map. I guess maybe it didn't come in, John with the testimony. That's okay. There we go. Mr. Bailey will provide it to us. Thank you. Does anyone else have any questions?

REP. SRINIVASAN: May I?

SENATOR GERRATANA: Oh, I'm sorry. Representative Srinivasan.

REP. SRINIVASAN: Thank you, Madam Chair. Thank you for being here this afternoon with your testimony.

Just one or two technical questions so that all of us on the Committee are all on the same page. The window is 60 minutes after you reach a stroke center. Am I saying that right, that the stroke center should administer the TPA within

215  
pat/gbr PUBLIC HEALTH COMMITTEE

March 19, 2014  
10:30 A.M.

60 minutes of their arriving at the emergency room?

CHARLES WIRA: So we take a step backwards. We know that giving TPA sooner rather than later is better.

REP. SRINIVASAN: Correct.

CHARLES WIRA: Every minute counts. Time is (inaudible) certified. There is advocacy groups stating that a certain proportion of patients should receive IV-TPA within 60 minutes of arrival to a hospital and that's kind of a benchmark. There's this nationally recognized group called Target Stroke, which is advocating that at least 50 percent of the patients have this benchmark that's being met, but the bar is basically being raised for this.

As a subset of these benchmarks, there's other different criteria that are looked at when a hospital stroke certified get in door to CT scan time within 10 minutes in order to do interpretation of the CT scan within 40 to 45 minutes and then like stated, the door to needle time for the IV-TPA being started or initiated within 60 minutes.

REP. SRINIVASAN: Thank you. Thank you for the clarification. And the other question I have is in terms of transport that's obviously so critical here, and you know, as Representative Cook had said that, if one is in a location where transport is not easily available and get to one of these stroke centers relatively soon.

Just for our information, would it be getting them by land to that hospital which is, you know, not around the corner unfortunately, or transporting them by air between the two. Would that EMS be making that decision as to how easy,

how early they can get the patients to the closest hospital?

CHARLES WIRA: We envision that the Office of EMS would kind of be working to deal with those logistics, to make those policies for each different region of the state.

But certainly, like I said, what kind of, what we are advocating for is that patients are brought at first to the right place where potentially like a prior speaker mentioned, there may have to be some systems that have patients brought to an initial hospital and then a scoop and run for a secondary transfer policy is arranged.

But anything, the end result is obviously to get the patient to the end destination, final destination where they can get the thrombolytic or clot-busting medication administered as quickly as possible

REP. SRINIVASAN: And my final question is that in the event that the transportation by air is not available at that particular time, because of so many other things happening and b) the hospital not being accessible, you know, in a relatively short time, but knowing that Hospital B, which is not a stroke center, which is not a certified stroke center, but does have the capacity to give the IV-TPA, you know, they have done that in the past as you said, you've received somebody like that, would it, once again of course EMS makes a call as to whether between those three locations, which would be the best place to go in that timeframe.

Would you have any recommendations for EMS and for us?

CHARLES WIRA: Well, once again, I would defer to the Office of EMS in terms of the protocols that are

made because there's certainly the people there and people in our group who are more knowledgeable about the pre-hospital care than myself.

But what we also hope from this is in kind of having broad agencies or entities that can certify stroke centers is that it will make it easier for the smaller community hospitals to attain and achieve certification status.

For instance, the Healthcare Facilities Accreditation Program, which is different and separate from the Joint Commission does permit free-standing emergency departments to become certified as an acute stroke ready center, so there then the emergency physicians will be within a system of care by which intravenous TPA can be given.

The cases that I cited I actually talked to two of the emergency physicians. They made the diagnosis correct. They knew what the intervention had to be but just within the context of their system because of their required monitoring and other things that come along with the administration of intravenous TPA they didn't feel comfortable in pulling the trigger to initiate the medication at their centers.

They knew what to do. They just didn't have the system to do it and the order they'd feel comfortable in that system.

REP. SRINIVASAN: Thank you very much, Doctor Wira for your testimony. Thank you, Madam Chair.

SENATOR GERRATANA: Thank you. Does anyone else have any questions? I guess not. Well, thank you for your testimony. That was quick. Only two. Okay. Let's see. We need to go to Louise McNelly.

LOUISE MCCULLOUGH: McCullough.

SENATOR GERRATANA: McCullough.

LOUISE MCCULLOUGH: (Inaudible).

SENATOR GERRATANA: I'm so sorry I could not at all read the handwriting.

LOUISE MCCULLOUGH: It's probably my writing.

SENATOR GERRATANA: Followed by Cynthia Rankin. Go ahead, Louise. Sorry.

LOUISE MCCULLOUGH: Thank you very much for hearing our testimony today. My name is Louise McCullough. I am a stroke neurologist at both the University of Connecticut Health Center and the Stroke Center at the Hartford Hospital.

90438

I live in Avon, Connecticut and I care for patients at both sites and I'm actually here on behalf of my patient population. I think that this is an extremely important bill and you've heard a lot about TPA and thrombolytic and acute stroke and we know that these work. There is an insurmountable amount of data in the literature that patients do better when they come to a certified stroke center. That has been shown again and again and again.

And if it's your dad or your husband or your child, you want them to get to the place where they are going to get the best care.

Obviously thrombolytics are a huge part of that care for ischemic stroke, but there are other types of stroke, bleeding strokes that may require neuro-surgical intervention and higher levels of care. Those patients also need to get to the certified stroke center.

Stroke care does not end in the ER. It is extremely important that EMS recognize stroke and get the tools and education so they can

recognize stroke and get the patient to the best site, especially if they're being considered for treatment, and that treatment should be given within 60 minutes of them hitting the emergency room.

But, stroke care also encompasses after care. So what kills our stroke patients? Infections. Pulmonary emboli, things that are treatable and that are core measures that we need to integrate into our systems of care if we're going to get that patient not only treated acutely, but also give them the best chance for recovery.

So speech therapy early, swallow evaluation. If you don't have speech therapy in your hospital and you come in with your stroke on Friday, guess what? You're not going to eat until Monday because nobody's going to make sure that you can swallow.

So things like that are very, very important to prevent aspiration, pneumonia and other complications that really interfere with the recovery of our patients.

I will stress, I am a huge advocate of TPA, but only eight percent of patients nationwide get TPA. Why is that? There's a lot of contraindications, including time. If you go to bed at 9:00 tonight and that's when your husband sees you normal and you wake up with hemiparesis, inability to talk or move your right side, guess when we have to start the clock? At 9:00 when you went to bed, the time you were last seen normal.

So now you're not eligible for TPA. So I just don't want to, I want to make sure that the systems of care and these stroke certification programs also understand that early rehab, early mobilization of patients, treatment of aspiration, swallow evaluation, neuro site

testing to make sure that you're okay to go home. Those also need to be built into this care as well as secondary prevention and outcomes and follow up with neurology. Thank you for your time.

SENATOR GERRATANA: Thank you. Representative Johnson has a question for you.

REP. JOHNSON: Thank you so much for your testimony and taking the time for being here with us today, and I just wanted, I'm looking at your testimony and I was looking at some of the other things that people had written and I'm just, with respect to, you're talking about ischemia but what about transient ischemic attacks as well?

LOUISE MCCULLOUGH: Exactly. So these are all a spectrum. TIAs, ischemic stroke and hemorrhages and those hemorrhages include the hemorrhages inside the brain and outside of the brain from aneurisms. All of those are sub-types of strokes, so we focus on ischemic strokes because it's 87 percent of strokes.

But TIAs are equally important. Do they have the same level of acuity if their neurological symptoms have resolved. That is the definition of a TIA, that you have a transient neurological deficit.

There is nothing worse than having a patient who has a transient neurological deficit, you go back into their room an hour later and guess what? They have the same deficit. So now they have a stroke. So it's very important that those patients are evaluated with the same urgency that ischemic strokes are because they actually present some of the best opportunities for us to intervene, because we want to do a rapid workup.

And in the stroke center certified program, they will get their workup more rapidly. They will get their echo. They will get the carotid studies done more rapidly. We can then prevent that second stroke, which often occurs within the first 90 days. People with TIA have unstable (inaudible) lesions. We need to find them and we need to treat them to prevent the stroke. The whole goal is to prevent the disability.

Even with TPA we're kind of chasing our tail. The TIA patient is the perfect example of where we as neurologists can intervene.

REP. JOHNSON: So should we, we should have this protocol, perhaps, in all the emergency medical centers.

LOUISE MCCULLOUGH: I believe so. And we have the advantage in Connecticut. Connecticut is a small state. Where I was in Maryland, there were often people who were three hours by, you know, helicopter to get here. We are in a small state and although 15 minutes drive time seems like a lot, we have a lot of certified stroke centers. We have 16. We need to make sure that we understand those hospitals have invested in stroke care. They want to take care of patients, and you should be able to get that high level of care.

We are a small geographic state and we should make sure that anybody who wants to treat stroke or TIA has that certification and that commitment to our patients.

REP. JOHNSON: Very good. So I'm thinking perhaps because sometimes you have the TIA and then of course the stroke follows.

LOUISE MCCULLOUGH: Exactly.

REP. JOHNSON: And I'm thinking perhaps there should be, is there a standard protocol whenever you go --

LOUISE MCCULLOUGH: No. Exactly. So at certified stroke centers there actually has to be a protocol in place. That's part of your certification process that you gauge risk. It's a thing called the ADCD, I won't go into it, it's getting late. But it tells us who's at highest risk for stroke in that first 30 to 60 days. You have to have that.

Many places that are not certified treat TIAs very kind of casually. They may even send them home without a workup. That's not acceptable. So I think if you're in a stroke center, certified center, you are going to get that emergent, timely workup for a TIA that you might not get if you go to a different hospital because they don't have that protocol in place.

And then it becomes very physician dependent or ER dependent, or oh yes, we'll send this one home but then next week the ER doctor admits them.

REP. JOHNSON: So why do you think it's taken so long for us to develop a protocol in this state with this information almost 20 years old, correct?

LOUISE MCCULLOUGH: Yes, absolutely. And I think, I have to give great amount of kudos to the DPH, because when I came here from Hopkins in 2004, I came because my dad had a stroke and did not get TPA and this is part of my passion for providing care for stroke patients.

The DPH recognized this and in 2005 we started meeting and they came up with a statewide stroke certification program that got 25 of our 31 patients, I think 25, or 23 of our 31 hospital certified. So you can tell the hospitals in

Connecticut want to do this. They know it's the right thing to do.

The DPH came up with a very reasonable, affordable, easy way to make sure that they could safely give TPA and safely take care of these patients. However, because of lack of funding as is often the case, that program has disintegrated.

We want to make sure we don't slide backward. We need to move forward. We need to make sure that if you walk into any hospital in Connecticut you are going to get high level care, whether it's through a partnership with a larger hospital, we need to make sure that this is the highest level of care, and if you can't provide that care, you should go somewhere that can, to a certified stroke center.

REP. JOHNSON: So in terms of the hospital delivery, that's really good to know. What about in transit. So you're in the transport. Maybe they're running out of time for the TPA.

LOUISE MCCULLOUGH: Right.

REP. JOHNSON: Is there any protocol there?

LOUISE MCCULLOUGH: So obviously the sooner you treat with TPA the better. And again, for that eight percent or ten percent patients that are eligible for every minute you delay TPA you lose 1.8 days of healthy life. So it's minutes.

So you want to get the patient to a facility that can treat them with TPA as soon as possible. Right now, as of the DPH certification 23 hospitals out of 31, that's pretty good in a small state, you could get TPA.

So that is the first thing. Now, if you don't want to kind of buy into the whole stroke system of care, you effectively give a primary stroke

center certification, they can give IV thrombolysis, then you can transfer to a higher level of care with a neuro ICU or a neurosurgical intervention but you don't want to wait and transfer that patient for 45 minutes not giving them TPA and that's where the drip and ship protocols came in, where we drip them and they get the TPA in the outside hospital and then come to our hospitals for higher level care.

REP. JOHNSON: Is that standard equipment in the emergency medical transport systems?

LOUISE MCCULLOUGH: No, and it has to be.

REP. JOHNSON: Is that one of the objectives?

LOUISE MCCULLOUGH: Yeah, that and tracking data and we didn't actually mention much about that, but obviously we want to know, does this drip and ship work? Are we actually doing what we think we're doing? Are we improving care for stroke patients?

The only way we can do that is to monitor our outcomes and look at them, and say, this is the right thing. Yes, we are making a difference with transfer or not transfer. So I think registry and outcome data is also going to be extremely important.

REP. JOHNSON: What do you think the limitations are in collecting the data?

LOUISE MCCULLOUGH: Well, it's manpower, because especially in some of the bigger programs like Get with the Guidelines, an American Heart sponsored program, they require a huge number of data elements. There are simpler versions.

The most important thing is that we get the four measures. Are they getting swallow screening? Are they getting DVT health classes? Are they

going out on a statin? Are they getting TPA? Those outcomes are minimal and we need to at least keep those.

And for example, I've been trying to determine, are we benefiting the patients who have the big bleeds, the intracerebral hemorrhages, which we have no treatment for, are we benefiting by bringing them to Hartford?

And I looked at patients who were transferred from other facilities to patients who walked in the door at Hartford, but I couldn't compare outcomes because I don't know how the patients did in those outside hospitals that weren't transferred.

So we need a system of care where we can track all patients because otherwise we can't compare them. So I think having these center certifications and Connecticut sponsored registry for every patient will help us improve care.

REP. JOHNSON: Have you begun to try and work to develop that?

LOUISE MCCULLOUGH: Yes. And Dawn Beland and AHA have been huge advocates, and we did. We took a little step back this loss of DPH support because that really did help some of these smaller hospitals get involved in stroke and they want to do what's right for their patients. Of course they do.

So you know, I think that was really an issue.

REP. JOHNSON: Wow. Thank you so much for your great testimony and your energy and your analysis of this very, very important issue, which I think if we do this protocol correctly we'll be able to save people's lives but also their quality of lives because, and save dollars down the road because people will be much more functional with

this, to see people live after suffering a cerebral vascular accident, whether it's time in the hospital and almost a full recovery or full recovery or without a full recovery with a severe hemiplegia or hemiparesis is something that you really need to make sure that we try to limit to the best of our ability.

LOUISE MCCULLOUGH: Thank you.

REP. JOHNSON: Thank you so much. Thank you, Madam Chair.

SENATOR GERRATANA: Thank you, and I don't think there are any, oh, Representative Srinivasan.

REP. SRINIVASAN: Thank you, Madam Chair. Thank you very much for your testimony this afternoon. We just received this stroke center certification data as of 2012, which I'm sure you know it better than the back of your palm, probably.

I'm curious just to make sure that I understand this right. Hospital Number 20, John Dempsey is not a certified stroke center? Is that what I see here?

LOUISE MCCULLOUGH: Oh, you got my Achilles heel.

REP. SRINIVASAN: Wait a minute. If I heard that right, that's where (inaudible).

LOUISE MCCULLOUGH: Yes, it is our state medical school. So this has been a huge bone of contention and I think we can give TPA very safely because it's (inaudible), we have residents that cover both Hartford Hospital and UConn. They're the same residents. They give the same care. It's very good.

The biggest issue and I won't get into UConn, is there was an issue that we had one shift a month where we were not covered for a CT scan. That's why. Because of the unions there were some

issues about overtime. That has been corrected. We actually recently hired a new stroke neurologist from (inaudible) named Dr. McCall who has come in and is redoing our protocols and we're hoping to integrate more with our partners, with Hartford and with other Hartford healthcare systems to really improve our care at Dempsey as well.

REP. SRINIVASAN: Thank you. Thank you. And I see, what is the difference between a comprehensive stroke center, which is Hartford Hospital and the rest of them called primary stroke centers.

LOUISE MCCULLOUGH: That's a great question. And in fact, Hartford is the only comprehensive stroke center. It's just a higher tier level of certification and it's something most hospitals would never do because it's not cost effective.

It basically means, and Yale is also close to getting certified. So primary stroke certification is for safely giving IV-TPA making sure you have CT scanners, making sure you have dysarthric screen.

Comprehensive is for interventional procedures, neuro ICU care, that higher level of care for the really ill patient or the patient who has massive cerebral edema and needs neurosurgical intervention. They should really be in a place with a neuro ICU where they can be more closely monitored.

REP. SRINIVASAN: Thank you. And my final question to you is, I was amused at the terminology ship and drip. Sorry, drip and ship.

LOUISE MCCULLOUGH: Drip and ship.

REP. SRINIVASAN: The other way around. Drip and ship. Not the other way around.

LOUISE MCCULLOUGH: Don't ship then drip. That takes too long.

REP. SRINIVASAN: Right. So you drip and ship. If I understand your drip and ship in a non-certified stroke center but because of physical limitations, geographic limitations whatever, the patient shows up at the center. The center gives them the IV-TPA.

LOUISE MCCULLOUGH: Correct.

REP. SRINIVASAN: But they don't, they're not a stroke center. They may not have a CT scan, I mean they may have a CT scan --

LOUISE MCCULLOUGH: They have to have a CT scan.

REP. SRINIVASAN: Twenty-four seven?

LOUISE MCCULLOUGH: Have to. If you're going to treat a patient, so no, if they came there and they had a CT scan and you excluded bleed, because that's the reason you need a CT scan. You don't want to give a clot buster that makes people bleed into somebody who already has a bleed. That would be very bad.

So they have to have CT scan imaging. I do this all the time because I'm a stroke neurologist at Hartford. I will get a phone call from Charlotte Hungerford or from somewhere during the day from a neurologist.

A lot of times the strokes don't happen at night anyway because they're sleeping, so they may not even recognize. So the morning and the afternoon we get more calls and they say, I have this patient. The CT scan looks normal. There's no early infarc signs. They're, you know, their labs look okay. I'll say, go ahead and treat them. Treat them and get them either in the helicopter or in the ambulance and ship them to me, especially the big strokes because

if TPA doesn't work, we also want to have salvage therapy, which involves going to the cath lab to try and suck out the clot, especially in a young patient.

For example, two weeks ago I had a 41-year-old found by his 11-year-old daughter. That patient got IV-TPA at an outside hospital but his carotid was occluded so you're not just going to leave that patient there. You're going to try everything you can. Those are the ones we say get them in the chopper and get them to me and we'll try and take them to the cath lab. That's a higher level of care, that kind of, you know, comprehensive center.

But many hospitals in Connecticut can safely give TPA. Sixteen of them are (inaudible) certified to do so. So many of them only get shipped if they need high level care.

I would love for 31 of the 31 to be able to give TPA. That may not happen. I think if we have a state center certification program, I bet you will get to at least 25, because we were at 23 just for the DPH and with no mandates.

So if we mandate it, you know, maybe we'll get 30.

REP. SRINIVASAN: Thank you very much and hopefully John Dempsey will be on the list of those, too.

LOUISE MCCULLOUGH: Oh, they're coming. They're coming.

REP. SRINIVASAN: Thank you. Thank you, Madam Chair.

SENATOR GERRATANA: Representative Cook.

REP. COOK: Thank you, Madam Chair. Hi, Dr. McCullough, how are you?

LOUISE MCCULLOUGH: Good, how are you?

REP. COOK: I'm doing okay. I have a question. So if I'm looking at the list of non-certified stroke centers, I see you take the Waterbury region, there is none. They are, I think Waterbury hospital is, or --

LOUISE MCCULLOUGH: No, they are not.

REP. COOK: They were DPH, though.

LOUISE MCCULLOUGH: So that's a perfect example of somebody who was safe to give TPA and has neurology support and will often call us who was DPH certified in giving IV-TPA safely and now can't.

REP. COOK: So my personal experience with this, my mother-in-law had a stroke a couple of years ago, taken to St. Mary's Hospital, kept at St. Mary's Hospital, not that they gave bad care and I don't want to, for national television here, in Connecticut world, so I don't want to make it sound that way.

But, and her care was good. Do those hospitals have a tendency to call and reach out to you if they are not certified in this or do they try to still do things in house? Where are we with this because I think that I'm hearing something different?

LOUISE MCCULLOUGH: So we're all over the map. That's the problem. That's why we need a certification program so we can ensure that the level of care at St. Mary's is the same as John Dempsey is the same as Hartford Hospital, at least for IV thrombolysis.

Many of those hospitals, St. Mary's, Waterbury, they are good at giving TPA. They reach out if they need help. They reach out if the patient is complex. Clearly, if the patient can get TPA safely and get all the systems of care that they need at Waterbury Hospital, and their family is

in Waterbury, they should stay in Waterbury because that's where their support system is.

It's only if they need extra care. So what we really want to do is just make sure that the care is the same at Waterbury and St. Mary's and that you are going to get TPA if you're eligible and you're going to get a swallow screen. That's really the whole point of this is to kind of raise the bar and keep the bar the same.

REP. COOK: And as you know, we are looking at conversions of different hospitals and things changing right in front of our very eyes.

LOUISE MCCULLOUGH: Yep.

REP. COOK: Can we ensure as we move forward, if we obviously make this a standard statewide, that those conversion hospitals that are coming in and the private hospitals, they're going to have to meet to our standards. Correct?

LOUISE MCCULLOUGH: Correct.

REP. COOK: So if we already have something in place we can ensure that they're going to maintain that to stay in place?

LOUISE MCCULLOUGH: Correct. And that's a great point.

REP. COOK: And we will continue to work with them.

LOUISE MCCULLOUGH: And that's a great point. Yes. And it would be nice to have that in place before this happens, yes.

REP. COOK: I agree because I don't think that going backwards, as you have said numerous times --

LOUISE MCCULLOUGH: Much more difficult.

REP. COOK: -- we would continue to go backwards. If we can put something in statewide standards at

this point, any of the changes that we're going to make in any of the private hospitals that could possibly move into this --

LOUISE MCCULLOUGH: Correct.

REP. COOK: -- state as we see this in the Waterbury area, specifically, this would already take care of all of those (inaudible).

LOUISE MCCULLOUGH: And they'll have to meet those standards and we'll track their patients' outcomes, and if their patient outcomes aren't as good, they need to answer to that and we need to find out why. So yes, it should be in place.

REP. COOK: Thank you. Thank you, Madam Chair.

LOUISE MCCULLOUGH: Thank you.

SENATOR GERRATANA: Thank you. Are there any other questions? If not, thank you for presenting your excellent testimony today.

LOUISE MCCULLOUGH: Thank you very much for listening.

SENATOR GERRATANA: We appreciate it very much. We'll move on to House Bill 5542. The first person to testify is David Lowell, followed by Scott Andrews.

DAVID LOWELL: Good evening, Senator Gerratana and Representative Johnson, distinguished members of the Committee. My name is David Lowell and I represent the Association of Connecticut Ambulance Providers.

I'm here today to speak in support of Raised Bill Number 5542 AN ACT CONCERNING THE RECOMMENDATIONS OF THE CONNECTICUT EMERGENCY MEDICAL SERVICES PRIMARY AREA SERVICE TASK FORCE.

Sherry Stohler RN, MSN SB 438

**Public Health Committee Public Hearing  
March 19, 2014**

Testimony on Raised Bill 438  
An Act Concerning Certification of Stroke Centers

Good afternoon Senator Gerratana, Representative Johnson and distinguished members of the Public Health Committee. My name is Sherry Stohler and I am submitting written testimony to ask for your support for **Senate Bill 438, An Act Concerning Certification of Stroke Centers.**

I am a Registered Nurse and have worked in the state of Connecticut for over thirty years. In my past roles as an Emergency Department RN and a Flight Nurse on the LIFE STAR Critical Care Helicopter, I have cared for many stroke patients. I have witnessed, first hand, how the transport distance to the closest Certified Stroke Center can significantly impact a patient's outcome. Like a heart attack or a major trauma, stroke patients have a time critical medical emergency that if not treated within an acceptable window of time can lead to permanent disabilities and a compromised level of function.

For citizens who are fortunate enough to leave in proximity to a Certified Stroke Center, their chance of survival and a full recovery from a stroke is greatly increased. Why should any citizen in Connecticut, based on the location of their home or work, have to experience compromised medical care because of a lack of Stroke Certified hospitals in our state?

I ask that you support Bill 438: An Act Concerning Certification of Stroke Centers on behalf of the citizens of Connecticut.

Please feel free to contact me with any questions at:

[Sherry.stohler@hhchealth.org](mailto:Sherry.stohler@hhchealth.org)

SB 438

I work at Midstate Medical Center. When I meet with patients who have suffered a stroke, I am amazed at how many of them come from outside Meriden. I soon realized that our neighboring hospitals, St. Mary's and Waterbury are not stroke centers. A key factor in reversing the effects of a stroke is getting the appropriate treatment quickly. I believe it is of vital importance that Midstate be able to offer the necessary services to the community for those residents who have suffered a stroke.

Thank You

Lori Boncher RN, BSN, MHA, NE-BC  
Nurse Manager Pavilion D  
Office Phone (203) 694-8297

**Public Health Committee Public Hearing  
March 19, 2014**

**Testimony on Raised Bill 438  
An Act Concerning Certification of Stroke Centers**

Good afternoon Senator Gerratana, Representative Johnson and distinguished members of the Public Health Committee. My name is Dawn Beland. I live in Burlington, CT; I am a nurse and a member of the CT Stroke Coordinators group. Since 2001, I have been the Stroke Center Coordinator at Hartford Hospital, now a Joint Commission certified Comprehensive Stroke Center. I am honored to have your attention, and am here today to ask for your support for Senate Bill 438, An Act Concerning Certification of Stroke Centers.

Since 2001, the science regarding the care of patients with stroke and the available treatments for stroke has grown considerably. For example, it's not just the administration of thrombolytics or tPA to eligible patients that's required but doing so within 60 minutes of ED arrival is currently the standard of care. To do this and other appropriate treatments, hospitals need to be organized and ready to deliver care whenever a patient arrives. Recognition and pre-arrival notification by EMS has been shown to facilitate this care. Building a state-wide system of care for Connecticut that links EMS and stroke capable hospitals would help to ensure consistent delivery of appropriate therapies and standardized care.

Demonstrating their support of this concept, the Department of Public Health launched a voluntary statewide program to designate CT's acute care hospitals as Primary Stroke Centers in 2007. After implementation of this program, the DPH gathered over 85 health care providers and stroke experts from diverse settings in CT in a 10-month planning process. From this effort, the CT Comprehensive Plan for Stroke Prevention and Care was developed. The goal of this plan was two-fold.

1. To create a coordinated system of stroke care in which it was possible for every CT resident experiencing a stroke to have access to appropriate and timely care.
2. To develop a coordinated care system involving emergency medical services, hospital stroke teams with specific training in stroke care, specialized hospital stroke units, and standardized care protocols for the diagnosis and treatment of stroke.

The plan was published in 2009 and was to cover activities through 2013. This plan was well-received by the hospitals in CT. While many hospitals in the state sought Joint Commission Primary Stroke Center certification, the DPH program allowed additional acute care hospitals to implement a standardized stroke system of care at their facilities. Over the years, 23 hospitals went through the process to become CT DPH designated Primary Stroke Centers; some (16) did so in addition to Joint Commission certification. Some (7) never attempted either. Unfortunately, due to changes in federal funding, this program ended December 31, 2013. As

such, there is the potential for hospitals to lose the capacity to provide an approved, rapid, systematic approach to acute stroke evaluation, treatment and recovery care.

An efficient and effective system of stroke care is needed in all of our communities to order to provide current, evidence-based treatment for patients with stroke. There is a public health need to identify acute care hospitals in CT as designated Primary or Comprehensive Stroke Centers to ensure rapid triage, diagnostic evaluation and treatment of patients suffering a stroke.

We look forward to working with the Public Health Committee and other interested groups as we continue to develop and revise the language of the bill to create a plan that serves our communities well.

Thank you,

Dawn K. Beland, MSN, RN, CCRN, ACNS-BC, CNRN  
Stroke Center Coordinator  
The Stroke Center at Hartford Hospital  
80 Seymour St.  
Hartford, CT 06102-5037  
860.545.2183 - #5  
860.545.1976 fax  
[dawn.beland@hhchealth.org](mailto:dawn.beland@hhchealth.org)

**A Joint Commission Comprehensive Stroke Center**



American Heart Association  
American Stroke Association  
**CERTIFICATION**  
Meets standards for  
**Comprehensive Stroke Center**

Public Health Committee Public Hearing

March 19, 2014

**Testimony on Raised Bill 438, an Act Concerning Certification of Stroke Centers**

Good afternoon Senator Gerratana, Representative Johnson and distinguished members of the Public Health Committee. My name is Cynthia Rankins and I live in New Britain, CT and I am here today to ask for your support for Senate Bill 438, an Act Concerning Certification of Stroke Centers.

My mother had a stroke about a month ago. I was getting ready for work about 7:00 am and when I went in her room to check on her I found her slumped over on her bed and she could not move or speak. I immediately called 911 and when the paramedics got to my house they started checking her vital signs and thought maybe it was her blood sugar. But it wasn't so they said it may be stroke and we should go right to the hospital, and I followed. At the ER the hospital doctor quickly checked my mother. She still did not respond so they ordered her a CT scan and they told me she was having a stroke. My mother couldn't speak or move her right side and she only responded to a pinch to her left side and she was not awake. The doctor ordered the drug TPA to be given, and within 45 minutes after she got it she was more awake but she still could not respond or speak. After about an hour she was then moving her right side and understanding what we were saying to her. By the next morning she was talking and understanding and trying to tell the family what happened to her. She was in the hospital for 5 days and every day she improved. After 5 days she was able to come home where she lives with me. It was like a miracle!

The ER staff worked very fast to help my mother and I am very grateful for that. I hope that every hospital in Connecticut has this TPA for Stroke patients and are able to use it as fast as they did for my mother.

With therapy my mother is almost back to her old self. Please pass this bill. Look at my mom; she is proof that this is a very good thing.

Thank you. ◦

}

March 15, 2014

Senator Gerratana, Representative Johnson, and distinguished members of the Public Health Committee,

My name is Nancy Hunter and I am requesting your support for Senate Bill 438, An Act Concerning Certification of Stroke Centers. As a newly hired stroke coordinator at a certified stroke center, I am learning how comprehensive stroke care increases the success of the patient. There are so many components to stroke care that certification is necessary for facilities to remain current and progressive. Every person in Connecticut deserves the opportunity to have access to a facility that provides the currently recommended stroke therapies.

Please consider supporting Senate Bill 438 concerning the certification of stroke centers in Connecticut.

Our stroke patients in Connecticut deserve to have the best outcome possible.

Thank you for your consideration,

Nancy Hunter



University of Connecticut Health Center  
*School of Medicine*

March 18<sup>th</sup>, 2014

**RE: Raised bill 438, An Act Concerning Certification of Stroke Centers**

To the members of the Public Health Committee,

Thank you for providing me with the opportunity to testify regarding an important public health issue for the residents of Connecticut. My name is Louise McCullough, and I am currently a Professor of Neurology at the University of Connecticut Health Center (UCHC) and a practicing vascular Neurologist at both UCHC and Hartford Hospital. I have been involved with the American Heart Association at both the local affiliate and national level for many years, having served as the Chair of the Clinical Brain study section and as a volunteer spokesperson. I was also closely involved with the formation of Connecticut's Department of Public Health's effort to develop a statewide stroke certification program in 2006. We initiated this program with our colleagues from the DPH when it became clear that significant disparities existed in the care provided to patients with acute stroke. Stroke is now the number one cause of adult disability and with our aging population the number of Connecticut residents at risk for stroke will continue to rise, leading to skyrocketing health care costs.

Currently there is one FDA approved therapy for acute ischemic stroke, the pharmacological thrombolytic tissue plasminogen activator (TPA). This agent has been repeatedly shown to reduce stroke-induced disability, with up to 40% of treated patients having minimal or no disability compared to patients that do not receive treatment. Time to treatment is critical, as nearly 2 million nerve cells die every minute unless blood flow is restored. Recent work from the Get with the Guidelines database show that the odds of ambulating and the ability to live independently diminish every 15 minutes TPA treatment is delayed. This treatment is one of the most efficacious therapies we have in clinical medicine, with a number needed to treat estimated at 6 (to put this in perspective the number needed to treat for benefit with commonly used medications such as statins is over 100). Despite its efficacy, only 8% of patients nationwide are treated. Much of this is due to the short time window for treatment, as TPA must be given within 4.5 hours of onset. Therefore, it is critical that systems be in place to provide emergent care and give our patients the best opportunity for treatment as rapidly and safely as possible.

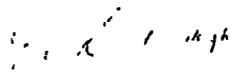
The goal of this bill is to provide all Connecticut residents with the best opportunity to receive the highest level of care for stroke. This includes not only TPA administration, but also other life-saving interventions for patients affected by stroke, including neurosurgical intervention for subarachnoid and intracerebral hemorrhage (bleeding strokes). It has been conclusively shown in a multitude of studies that patient outcomes are better in certified stroke centers. These centers have the resources and expertise to treat these acutely ill patients, and give them the best

chance of functional recovery. It is important to stress that safe thrombolytic usage can be achieved at any hospital with the necessary neurological expertise and a CT scan, especially as hospitals now have the opportunity to provide expertise through telestroke networks, which have been shown to increase acute treatment rates safely. The services provided by certified centers however, extend beyond that of thrombolysis and include early access to rehabilitation and speech therapy (which provides swallow evaluations to prevent aspiration), early antiplatelet use, DVT prophylaxis and other core measures that have been shown to improve patient outcomes and reduce disability and stroke related complications. A certification program that is accepted statewide that accomplishes these goals is needed to ensure that all our Connecticut residents have equal access to this level of care that affords them with the best chance of recovery from this disabling disease. A commitment to following established protocols, meeting core measures, and tracking patient outcomes is critical to improving care.

In this proposed bill, we request and encourage state-wide legislation that will ensure early and appropriate access to a stroke system of care at stroke certified hospital. Our goals are to develop (1) a legal requirement for hospitals seeking recognition as a Stroke Center to achieve either an Acute Stroke Capable, Primary Stroke Center or Comprehensive Stroke Center certification based on nationally recognized standards including AHA/ASA Guidelines, Brain Attack Coalition Recommendations, the Joint Commission designation program and any other designation program deemed by DPH to have a suitably rigorous evaluation process; (2) Legislation enabling the Office of Emergency Medical Services to establish pre-hospital care protocols related to the assessment, treatment, and transport of stroke patients by licensed Emergency Medical Services providers in this state to certified stroke centers; (3) to create a statewide stroke registry that aligns with existing stroke consensus measures so that patient outcomes can be tracked to best utilize our state's resources and identify areas for improvement; (4) broaden medical reimbursement policy for acute stroke services to enable smaller community hospitals to better fund and support their programs and improve community educational efforts.

We thank you for your consideration

Sincerely,



Louise McCullough, MD/PhD  
University of Connecticut Health Center &  
The Stroke Center at Hartford Hospital  
MC-1840, Department of Neurology  
263 Farmington Avenue  
Farmington, CT 06030  
E-mail: [lmccullough@uchc.edu](mailto:lmccullough@uchc.edu)

**Public Health Committee Public Hearing  
March 19, 2014**

**Testimony on Raised Bill 438  
An Act Concerning Certification of Stroke Centers**

Good afternoon Senator Gerratana, Representative Johnson and distinguished members of the Public Health Committee. My name is Dawn Beland. I live in Burlington, CT; I am a nurse and a member of the CT Stroke Coordinators group. Since 2001, I have been the Stroke Center Coordinator at Hartford Hospital, now a Joint Commission certified Comprehensive Stroke Center. I am honored to have your attention, and am here today to ask for your support for Senate Bill 438, An Act Concerning Certification of Stroke Centers.

Since 2001, the science regarding the care of patients with stroke and the available treatments for stroke has grown considerably. For example, it's not just the administration of thrombolytics or tPA to eligible patients that's required but doing so within 60 minutes of ED arrival is currently the standard of care. To do this and other appropriate treatments, hospitals need to be organized and ready to deliver care whenever a patient arrives. Recognition and pre-arrival notification by EMS has been shown to facilitate this care. Building a state-wide system of care for Connecticut that links EMS and stroke capable hospitals would help to ensure consistent delivery of appropriate therapies and standardized care.

Demonstrating their support of this concept, the Department of Public Health launched a voluntary statewide program to designate CT's acute care hospitals as Primary Stroke Centers in 2007. After implementation of this program, the DPH gathered over 85 health care providers and stroke experts from diverse settings in CT in a 10-month planning process. From this effort, the CT Comprehensive Plan for Stroke Prevention and Care was developed. The goal of this plan was two-fold.

1. To create a coordinated system of stroke care in which it was possible for every CT resident experiencing a stroke to have access to appropriate and timely care.
2. To develop a coordinated care system involving emergency medical services, hospital stroke teams with specific training in stroke care, specialized hospital stroke units, and standardized care protocols for the diagnosis and treatment of stroke.

The plan was published in 2009 and was to cover activities through 2013. This plan was well-received by the hospitals in CT. While many hospitals in the state sought Joint Commission Primary Stroke Center certification, the DPH program allowed additional acute care hospitals to implement a standardized stroke system of care at their facilities. Over the years, 23 hospitals went through the process to become CT DPH designated Primary Stroke Centers; some (16) did so in addition to Joint Commission certification. Some (7) never attempted either. Unfortunately, due to changes in federal funding, this program ended December 31, 2013. As

such, there is the potential for hospitals to lose the capability to provide an approved, rapid, systematic approach to acute stroke evaluation, treatment and recovery care.

An efficient and effective system of stroke care is needed in all of our communities to order to provide current, evidence-based treatment for patients with stroke. There is a public health need to identify acute care hospitals in CT as designated Primary or Comprehensive Stroke Centers to ensure rapid triage, diagnostic evaluation and treatment of patients suffering a stroke.

We look forward to working with the Public Health Committee and other interested groups as we continue to develop and revise the language of the bill to create a plan that serves our communities well.

Thank you,

Dawn K. Beland, MSN, RN, CCRN, ACNS-BC, CNRN  
Stroke Center Coordinator  
The Stroke Center at Hartford Hospital  
80 Seymour St.  
Hartford, CT 06102-5037  
860.545.2183 - #5  
860.545.1976 fax  
[dawn.beland@hhchealth.org](mailto:dawn.beland@hhchealth.org)

**A Joint Commission Comprehensive Stroke Center**



American Heart Association  
American Stroke Association  
CERTIFICATION  
Meets standards for  
Comprehensive Stroke Center



**TESTIMONY OF  
CONNECTICUT HOSPITAL ASSOCIATION  
SUBMITTED TO THE  
PUBLIC HEALTH COMMITTEE  
Wednesday, March 19, 2014**

**SB 438, An Act Concerning Certification Of Stroke Centers**

The Connecticut Hospital Association (CHA) appreciates this opportunity to submit testimony concerning **SB 438, An Act Concerning Certification Of Stroke Centers**. CHA has concerns about the bill.

Before outlining our concerns, it's important to detail the critical role hospitals play in the health and quality of life of our communities. All of our lives have, in some way, been touched by a hospital: through the birth of a child, a life saved by prompt action in an emergency room, or the compassionate end-of-life care for someone we love. Or perhaps our son, daughter, husband, wife, or friend works for, or is a volunteer at, a Connecticut hospital.

Hospitals treat everyone who comes through their doors 24 hours a day, regardless of ability to pay. In 2012, Connecticut hospitals provided nearly \$225 million in free services for those who could not afford to pay.

SB 438, An Act Concerning Certification Of Stroke Centers, seeks to mandate a variety of criteria that are currently voluntary. Although well-intentioned, the bill will have unanticipated negative effects on healthcare in Connecticut.

In an unusual move, the bill would require hospitals to adopt the American Heart Association's and American Stroke Association's guidelines concerning stroke treatment and participate in the American Heart Association's stroke data collection program. The state should not statutorily adopt any organization's guidelines as the sole source of medical judgment. Cutting edge medical innovations and developments can be discovered and invented in bursts – sometimes practically overnight. The landscape for care in any specific disease or medical area is subject to constant change and innovation. In the last decade alone, there have been substantial developments in a variety of cardiac care protocols and approaches, including those for stroke. We do not believe it is appropriate to mandate one course of care as the only course of care.

Additionally, the bill implies that patient choice of hospital or physician will be removed, and distance or proximity to emergency care will become unimportant - even when proximity to an emergency department may be the only thing that saves a patient's life. The bill implies that DPH will decide where care is provided when a stroke is suspected. We believe this moves us in the wrong direction and undermines our system of care. We support efforts to improve care across the board, and therefore cannot support a mandate that freezes in time what care is delivered at which institution for specific conditions without sufficient scientific evidence that such a drastic change is needed.

While we appreciate that there is a desire to be sure patients have the best resources, by mandating a system of care based on a snapshot in time, and including only some of the relevant criteria, we ultimately create imbalance and dysfunction in our system of hospital care.

Thank you for your consideration of our position. For additional information, contact CHA Government Relations at (203) 294-7310.



Connecticut Department of Public Health

Testimony Presented Before the Public Health Committee

Wednesday, March 19, 2014

Commissioner Jewel Mullen, MD, MPH, MPA

860-509-7101

**Senate Bill 438: An Act Concerning The Certification Of Stroke Centers**

The Department of Public Health (DPH) offers the following information regarding Senate Bill 438.

The Department would like to thank the Public Health Committee for acknowledging the importance of establishing a coordinated system of stroke care in the state. Stroke is the 3<sup>rd</sup> leading cause of death in Connecticut and the leading cause of long-term disability. According to DPH Vital Records Mortality Files, there were 1,326 deaths caused by stroke in Connecticut in 2010, or 4.6% of all Connecticut resident deaths. In 2011, 7,523 Connecticut residents were hospitalized with a stroke as the principal diagnosis. Stroke care is expensive. The Acute Care Hospital Inpatient Discharge Database (HIDD) indicates that the total charges of all stroke hospitalizations in 2011 was \$351,023,970, with a median charge of \$26,742.

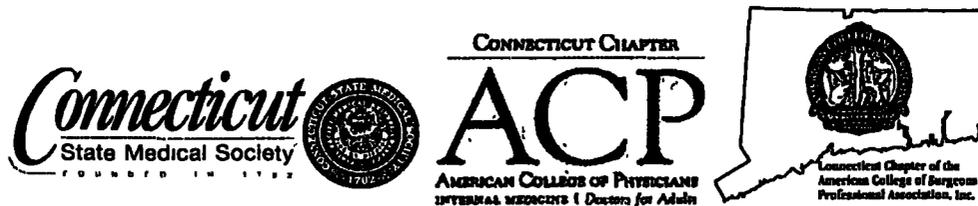
The proposed bill would require DPH to establish a coordinated system of stroke care within Connecticut. The bill requires the Commissioner to establish a process to recognize primary stroke centers in the state. A hospital would be designated a primary stroke center if it has been certified as such by The Joint Commission. The bill would also require the Office of Emergency Medical Services to adopt a nationally-recognized stroke assessment tool. The bill further mandates all Emergency Medical Services (EMS) organizations to follow this uniform pre-hospital protocol for the assessment, treatment and triage of stroke patients. Additionally, the bill requires DPH to create and maintain a secure database to compile and analyze information and statistics on stroke treatment in Connecticut as part of a continuous quality improvement plan.

To achieve the best outcomes for persons experiencing a stroke, it is critical that they receive rapid identification of stroke symptoms and transport to the closest acute care hospital with established treatment guidelines and protocols in place to ensure the patient receives the best stroke care possible. Senate Bill 438 takes steps to establish a coordinated system of stroke care that begins with the onset of stroke symptoms and goes through rehabilitation following treatment at a recognized primary stroke center.

Phone: (860) 509-7269, Fax: (860) 509-7100, Telephone Device for the Deaf (860) 509-7191  
 410 Capitol Avenue - MS # 13GRE, P.O. Box 340308 Hartford, CT 06134  
 An Equal Opportunity Employer

While a state-wide stroke system of care would be valuable, it is important to consider that additional staff and infrastructure would be necessary to meet the bill's requirements. These required resources are not included in either the Governor's enacted budget or the Governor's midterm budget adjustments.

Thank you for your consideration of the Department's views on this bill.



**Testimony in Support of Senate Bill 438  
An Act Concerning The Certification Of Stroke Centers  
Public Health Committee  
March 19, 2014**

Senator Gerratana, Representative Johnson and members of the Public Health Committee, on behalf of the physicians and physicians in training of the Connecticut State Medical Society (CSMS) and the CT Chapter of the American College of Physicians (CT ACP) and the CT Chapter of the American College of Surgeons (CT ACS), thank you for the opportunity to provide this testimony to you today in support of Senate Bill 438 An Act Concerning The Certification of Stroke Centers.

CSMS is pleased to add its support for the legislation before you, the product of a tremendous amount of work and effort by many individuals and organizations including the American Heart Association and the Stroke Coordinators of Connecticut Group.

In Connecticut alone we lose nearly 1,500 of our citizens to this disease that currently is the 4<sup>th</sup> leading cause of death overall and the leading cause of adult long-term disability. State of the art care demands prompt treatment in order to minimize damage from a stroke. The need to develop a strong stroke response system of centers receiving accreditation from nationally recognized organization is evident. Language contained in Senate Bill 438 would ensure that a system is in place on Connecticut that ensures that rapid care is available by appropriately trained individuals in facilities meeting the highest standard for quality of care for stroke victims.

Please support Senate Bill 438

## Public Health Committee Public Hearing

March 19, 2014

**Testimony on Raised Bill 438, An Act Concerning Certification of Stroke Centers**

Good afternoon Senator Gerratana, Representative Johnson and distinguished members of the Public Health Committee. My name is Kristen Hickey, from Wolcott, Connecticut, and I am here today to ask for your support for Senate Bill 438, An Act Concerning Certification of Stroke Centers.

Stroke, a blockage or rupture of a blood vessel in the brain, is the 4<sup>th</sup> leading cause of death in Connecticut, killing more than 1400 residents a year, while also being the leading cause of disability. The most recent economic data from the DPH states the stroke hospitalization charges for Connecticut residents amounted to \$192 million in 2005. Treatment of Stroke is extremely time sensitive because approximately 32,000 brain cells die per second. With Stroke treatment being so urgent and potentially lifesaving, one would think that every hospital in Connecticut is prepared to care for Stroke patients and that is not the case. As a Stroke Coordinator of The Hospital of Central Connecticut, both the Bradley and New Britain campuses, as well as Midstate Medical Center, I see on a daily basis, the positive impact organized stroke care can have on a patient's treatment and recovery and I am disheartened that this treatment is not available for all residents of Connecticut. Currently, Connecticut's level of stroke care is not meeting National recommendations and standards, unlike our neighboring states of New York and Rhode Island. There are no standardized protocols for rapid transport to appropriate health care facilities for patients experiencing an acute stroke. Also, not every hospital in Connecticut is capable of caring for acute Stroke patients, but they continue to treat these patients, and they do not provide the standard of care as recommended by the FDA. TPA is the evidence-based treatment for acute stroke but

it is not available or used correctly in many hospitals across the state and this is something that must improve.

As a Stroke Coordinator for the last 7 years, I have seen the care of stroke patients at the Hospital of Central Connecticut greatly improve as a direct result of our Primary Stroke Center Certification. This rigorous certification process focuses on the multidisciplinary team approach to stroke care as well as the Stroke Center's performance improvement initiatives. Our patients truly benefit from the expertise and collaboration that occurs because of the Primary Stroke Center Certification.

In 2007, the Department of Public Health attempted to address this issue by developing a voluntary designation program for Primary Stroke Centers. But, in 2013, the DPH decided to move in a different direction, focusing its resources on prevention, and that left the state of Connecticut with a large void in stroke care. **Raised Bill 438, An Act Concerning Certification of Stroke Centers**, can greatly improve the inadequacies of stroke care in Connecticut. Every person deserves to have the best possible stroke care and this bill can help Connecticut achieve that goal. Under no circumstance should any Connecticut resident have to sacrifice quality of life because of where they live. I am passionate about improving Stroke Care in Connecticut and the core belief behind **Raised Bill 438, An Act Concerning Certification of Stroke Centers** is that quality of care for Stroke patients needs to become a priority for all hospitals in Connecticut. Doing what is best for our most vulnerable population should always be our top priority.



**TESTIMONY OF YALE NEW HAVEN HEALTH SYSTEM  
SUBMITTED TO THE  
PUBLIC HEALTH COMMITTEE  
Wednesday, March 19, 2014**

**Senate Bill 438, An Act Concerning Certification of Stroke Centers**

Yale New Haven Health System (YNHHS) appreciates the opportunity to submit testimony in support of Senate Bill 438, An Act Concerning Certification of Stroke Centers. The bill seeks to, among other things, establish a process to recognize primary stroke centers in the state; require the Department of Public Health's Office of Emergency Medical Services to adopt a nationally-recognized stroke assessment tool; establish care protocols for emergency medical service organizations relating to the assessment, treatment and transport of persons with stroke; and establish and implement a plan to achieve continuous quality improvement in the care provided to persons with stroke and the system for stroke response.

Yale New Haven Health System (YNHHS) is Connecticut's leading healthcare system with over 19,000 employees and nearly 6000 medical staff.

Through Bridgeport, Greenwich and Yale-New Haven Hospitals, and their affiliated organizations, YNHHS provides comprehensive, cost-effective, advanced patient care characterized by safety, quality and service. We offer our patients a range of healthcare services, from primary care to the most complex care available anywhere in the world. YNHHS hospital affiliates continue to be a safety-net for our communities, and we provide care 24 hours per day, seven days per week. In addition to being economic engines for our communities, YNHHS hospitals care for more than one quarter of the State's Medicaid patients and provide millions in free and uncompensated care to those who need our services and have no ability to pay for them.

With the implementation of healthcare reform, hospitals must find new and strategic approaches to care for patients. Since the Affordable Care Act penalizes hospitals for patient readmissions, the entire scope of care for a patient must be considered when treatment decisions are being made. Patients who require specialized and complex care must be afforded access to facilities that will provide the best care, and treatment facilities must be provided appropriate guidelines to assure the best outcome for patients.

Senate Bill 438 takes a step in the right direction to create a mechanism that will provide reliable care protocols for treating and caring for stroke patients in Connecticut, and it also builds on YNHHS' quality and patient safety initiatives. We therefore ask for your support on Senate Bill 438.

Thank you for your consideration.

Karin Nystrom

**Public Health Committee Public Hearing  
March 19, 2014**

**Testimony on Raised Bill 438  
An Act Concerning Certification of Stroke Centers**

Good afternoon Senator Gerratana, Representative Johnson and distinguished members of the Public Health Committee. My name is Karin Nystrom, and I am here today to ask for your support for Senate Bill 438, An Act Concerning Certification of Stroke Centers.

Strokes can be a deadly disease and is certainly a most dreaded event. For every minute someone suffers a stroke, 1.8 million neurons are lost, leaving a previously normally functioning person with a potential plethora of physical and cognitive impairments. Stroke is no longer a disease of the elderly. Patients that present with stroke symptoms are younger and span both genders. Given that patients in their 40s and 30s are now living with risk factors for stroke, it is apparent that cerebrovascular disease has become a significant health concern across most age groups.

As a stroke coordinator of the state's largest tertiary care medical center and as an advanced practice nurse in a busy stroke program in southern New England, I have been extensively involved in developing standards and policies to comply with the Joint Commission's requirements for Primary Stroke Center and in caring for stroke patients and their families recovering from a stroke. Never has it been more crucial than now to consider the importance of mandating a consistent stroke system of care across our state. Once a stroke victim calls 9-1-1, they have the best chance for recovery when they are cared for by trained EMS personnel and an acute stroke team that are part of a standardized system of stroke care. This translates to ensuring an organized approach to training EMS in the recognition of stroke symptoms, ensuring the delivery of patients to an acute stroke ready facility, and offering those patients the highest standard of stroke treatment and care to optimize a full recovery.

**CONCLUSION:**

The need for a consistent stroke system of care across Connecticut has never been greater. Numerous studies have shown that acute and recovery stroke care can be enhanced when there is a system of care that has been certified as following national guidelines. Bill 438 will be the conduit through which stroke care can increase awareness, optimize treatment regimens, and reduce the burden of disability for patients, for families, and for communities in Connecticut. Many of our neighboring states have lead this charge. Connecticut needs to step up to the plate on this issue.

Thank you for consideration on this important matter.

Karin V. Nystrom, MSN, APRN, FAHA  
Associate Director, Yale-New Haven Stroke Center

David Basque  
HB 438

The Honorable Terry Gerratana, Senate Chair  
The Honorable Susan Johnson, House Chair  
Public Health Committee  
Legislative Office Building, Room 3000  
Hartford, CT 06106

March 19, 2014

Dear Chairwoman Gerratana, Chairwoman Johnson, and members of the committee,

My name is David Basque, I live in Windsor Locks, and I support S.B. 438 because it will make a lifesaving difference when someone suffers a stroke in our community.

I am a stroke survivor. The concepts raised in this bill will effect future stroke patients and increase the chances a patient will live through a stroke. In my case, it was just luck that I was brought to a Certified Stroke Ctr., Hartford Hospital.

I realized now that had I been brought to what is now mandated the closest available emergency room I could have been treated differently at a non-certified emergency room. The type of stroke I had was a brain bleed which is not the same as an ischemic stroke where the protocol is to use clot busting drugs, the result of being treated with clot busting drugs would have probably killed me.

I am grateful that the well-trained staff at Hartford Hospital treated me and saved my life.

This bill would mandate first responders to bring stroke patients to a certified stroke center. Luck should not be a factor in receiving the appropriate stroke care. I hope you will vote in support of this bill.

Thank you

Sincerely,  
David Basque  
297 South Center St.  
Windsor Locks, CT 06096  
[Dbasque1@att.net](mailto:Dbasque1@att.net)  
Peace  
Dave

Dear Public Health Committee Members,

On behalf of National Stroke Association, thank you for sponsoring SB 438 which includes a number of provisions to improve the treatment of stroke in Connecticut. This is an important part of developing a strong stroke system of care in your state.

Your stroke system of care legislation is important to the stroke community for many reasons. Because every second counts when someone is having a stroke, getting stroke patients to proper treatment is crucial. It can give patients a better chance of survival and a better quality of life after a stroke. Stroke is the fourth leading cause of death in the U.S., and in 2010 alone, 137,000 people died as a direct result of it. Additionally, improved recoveries can also mean that patients will require fewer healthcare services over the long term. This has the potential to reduce healthcare costs for your state and the entire healthcare system.

At National Stroke Association, we focus 100 percent of our resources and attention on stroke. Our Stroke Advocacy Network consists of over 11,000 stroke survivors, caregivers, family members and stroke-associated healthcare professionals. The network helps these advocates share their stroke-related experiences, challenges and needs with legislators like you and your colleagues in the Minnesota legislature.

On behalf of the stroke community, we commend you for your work to build a strong stroke system of care in your state. Please know that you have our full support.

Sincerely,



Coral Cosway  
Director, Policy Advocacy  
[ccosway@stroke.org](mailto:ccosway@stroke.org) | 303-754-0907

---

National Stroke Association is the only national nonprofit healthcare organization focusing 100 percent of its resources and attention on stroke. Our mission is to reduce the incidence and impact of stroke by developing compelling education and programs focused on prevention, treatment, rehabilitation and support for all impacted by stroke.

**We are notifying our advocates in Connecticut about this legislation asking them to take action by communicating with their legislators about it.**

Joan Haines RN  
SB 438  
3/19/14 Public Hearing

I am writing today, March 15th asking for your support for Senate Bill 438, An Act Concerning Certification of Stroke Centers and the following are my reasons why

\_\_ I have been the Facilitator of the Wethersfield Stroke Club, a support group for stroke survivors and their families for 34 years one of the first such groups in CT

\_\_ I have seen many changes in treatment over the years and until recently there was no treatment only rehab

\_\_ Now that there is hope with the medication tPA and other surgical interventions and these can only be done in Primary Stroke Centers because of their staff's expertise, not found in community hospitals

\_\_ Coordination is necessary for EMS services to get a person experiencing any symptoms of a stroke to a hospital considered a Primary Stroke Center as quickly as possible because it is now considered an emergency 911 call

-- There are time limits for treatment now so there should be designated hospitals throughout our state known to EMS not only to increase survival rates but decrease severe disabilities

\_\_ After the acute phase, these centers have specialized staff to coordinate rehabilitation plans to help the survivor get on with their once again and certainly lessening the cost to the state

In conclusion

There is so much to be hopeful for now in the treatment of stroke please keep CT. in the forefron of these advances and not go backwards!!

The medical community is working to do their part and this state must do their part to make stroke less debilitating and to your advantage less costly to our state

Thank you,  
Joan Haines RN

**Yale University**  
 School of Medicine  
 Department of Emergency Medicine  
 464 Congress Ave , Suite 260  
 New Haven, CT 06519  
 Phone 203-737-2489, Fax 203-785-4580  
[Charles.wira@yale.edu](mailto:Charles.wira@yale.edu)



**Charles R. Wira, III, MD**  
 Assistant Professor of Emergency Medicine  
 Yale Stroke Service, Department of Neurology  
 Board Certified Internal and Emergency Medicine  
 Chair Elect, Northeast Cerebrovascular Consortium  
 American Heart Association/American Stroke Association

Date: March 17, 2014

RE: Raised Bill 438, An Act Concerning Certification of Stroke Centers

To the distinguished members of the Public Health Committee,

Thank you for the opportunity to testify regarding a very important health issue in our state. My name is Charles Wira and I am here today to ask for your support for Senate Bill 438, An Act Concerning Certification of Stroke Centers. I am an Assistant Professor of Emergency Medicine at the Yale School of Medicine and work clinically within the Yale Department of Neurology as a Faculty Member providing clinical coverage for the Yale Stroke Service. I am also a volunteer Vice-Chair for the NorthEast Cerebrovascular Consortium which advocates for a stroke systems of care model in the Northeast, and serve as a volunteer spokesperson for the American Heart Association and American Stroke Association (AHA/ASA).

In our state, stroke and cerebrovascular disease have been one of the top 5 leading causes of death taking the lives of just over 1300 residents in the year 2010. Stroke is also a leading cause of disability. Past initiatives operated by the Connecticut Department of Public Health have recognized the importance of treatment interventions for this high acuity patient population exemplified by the establishment of the state's Primary Stroke Center Designation Program which had the over-arching objective of getting stroke patients as quickly as possible to stroke-certified hospitals where they could receive, if eligible, life-saving interventions to open up the intracranial clots causing their deficits (ie- paralysis of arms/legs, inability to speak, inability to see, comatose state, etc). Due to "cost and a lack of funding" this program was discontinued effective on January 1, 2014. Currently, there is no legislation mandating that stroke patients be brought to certified stroke centers.

For background information, there is an abundance of medical literature demonstrating that TPA, tissue plasminogen activator (ie- a clot-buster medication) is the medication of choice for acute ischemic strokes (ie- when a clot cuts off blood supply to a part of the brain) and gives providers the greatest opportunity to open up a blocked vessel. However, time to treatment is of enormous importance as the likelihood of irreversible brain damage increases

for every minute of delay. Also, select patients may only receive this medication within a narrow 4.5 hour time window from the onset of their stroke symptoms. Furthermore, there are rare circumstances in which the administration of TPA could be dangerous and potentially associated with life-threatening bleeding. The existing literature demonstrates that eligible patients are more likely to receive TPA at stroke-certified hospitals contrasted to those that are not certified, and, that off-label use of TPA outside of the parameters recommended by existing national practice guidelines can have significantly higher complication rates.

Each of these points underscore the reason why organizations like the American Heart Association/American Stroke Association, the NorthEast Cerebrovascular Consortium, the American College of Emergency Physicians and other organizations highly recommend that this medication be given in the context of a "system of care". These organizations advocate that hospitals serving as stroke-centers be certified by an independent outside organization (ie- The Joint Commission, The Healthcare Facilities Accreditation Program, State Certified Programs, etc) to ensure that treatment protocols at the local hospitals are compliant with existing national guidelines, that key benchmarks in the treatment of acute stroke are being met, and that there is continuing education for providers (physicians and nurses) managing stroke patients so they can be up-to-date in their knowledge of managing the numerous complexities in the acute phase of care.

In our state today there is great geographical variation in terms of how stroke patients are managed and treated. Being a physician who works at a tertiary care hospital in our state—I have seen several cases of missed opportunities for treatment interventions among patients transferred to our hospital from smaller non-certified community hospitals or free-standing Emergency Departments. The community hospital Emergency Physicians I have spoken with regarding some of these cases didn't feel comfortable in giving TPA to their patients in the context of their system of care. I have also spoken with community hospital Neurologists who feel that care at their hospitals for stroke patients would be better if their hospitals became formally certified as a primary stroke center. Thus, change is necessary so that every Connecticut resident will have rapid and equal access to high quality care if they suffer a stroke in any part of the state.

In this proposed bill, we envision making Connecticut more like our neighboring states of New York, Rhode Island, and Massachusetts with regards to having state-wide legislation ensuring early and appropriate access to a stroke system of care and stroke certified hospital. We want Connecticut to develop the following: (1) a legal requirement for hospitals seeking recognition as a Stroke Center to achieve either an Acute Stroke Capable, Primary Stroke Center or Comprehensive Stroke Center certification based on nationally recognized standards including AHA/ASA Guidelines, Brain Attack Coalition Recommendations, the Joint Commission designation program and any other designation program deemed by DPH to have a suitably rigorous evaluation process; (2) Legislation enabling the Office of Emergency Medical Services to establish pre-hospital care protocols related to the assessment, treatment, and transport of stroke patients by licensed Emergency Medical Services providers in this state to certified centers, (3) to create a statewide stroke registry that aligns with existing stroke consensus measures; (4) broaden medical reimbursement policy for acute stroke services to enable smaller community hospitals to better fund their programs

We thank you for your consideration and look forward to working with other stakeholders and the Department of Public Health to create policy aimed at better serving the residents in our state.

Sincerely,

A handwritten signature in black ink, appearing to read 'C. Wira III'.

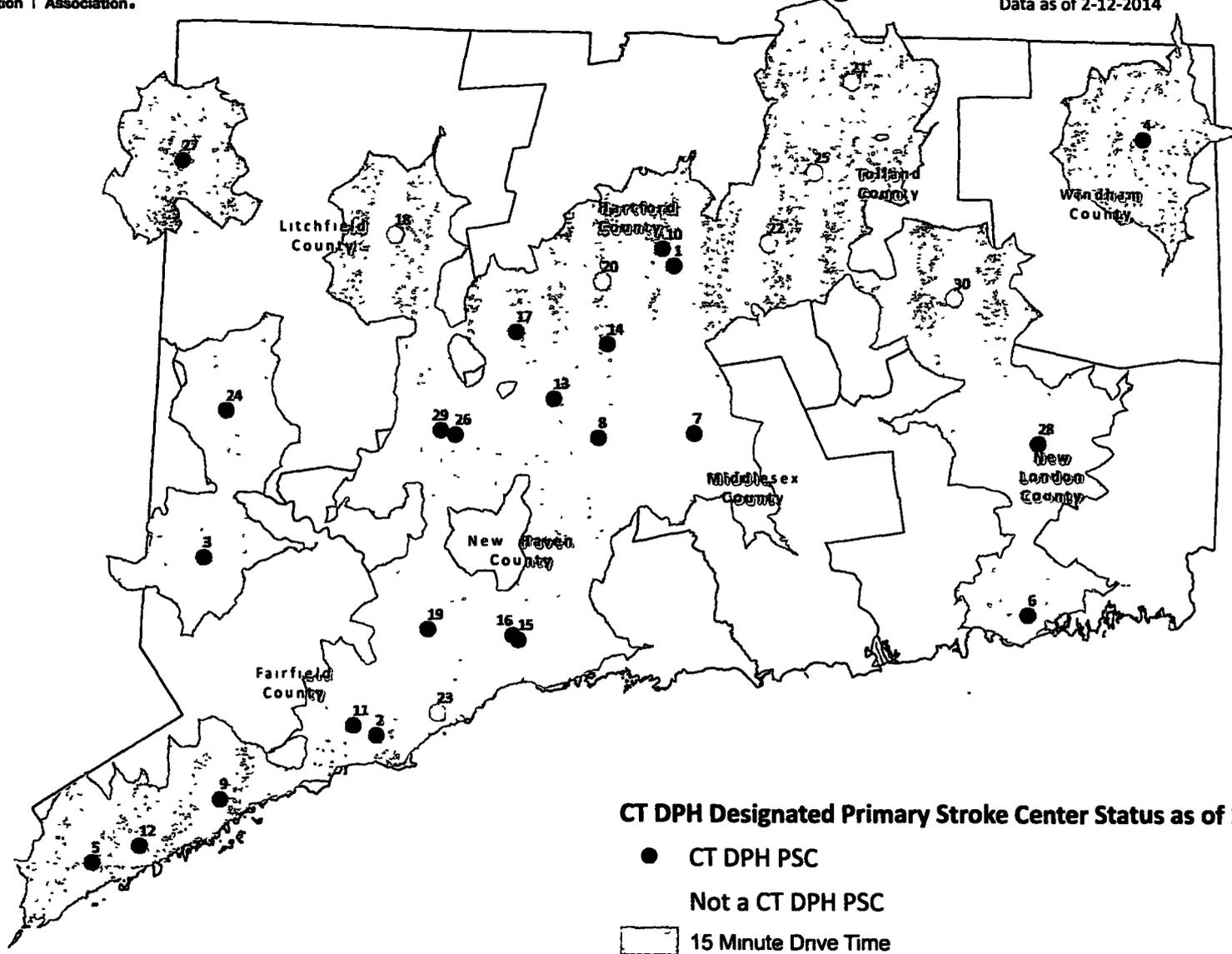
**Charles R. Wira III, MD**  
**Assistant Professor of Emergency Medicine**  
**Attending Physician, Yale Acute Stroke Service and Department of Neurology**  
**Yale University School of Medicine**

004226



# Connecticut Hospitals by Former CT DPH Stroke Center Designation

Data as of 2-12-2014



The Honorable Terry Gerratana, Senate Chair  
 The Honorable Susan Johnson, House Chair  
 Public Health Committee  
 Legislative Office Building, Room 300  
 Hartford, CT 06106



Dear Chairwomen Gerratana and Johnson,

The American Heart Association supports Senate Bill 438, An Act Concerning Certification of Stroke Centers. The American Heart/Stroke Association (AHA/ASA) is the largest voluntary health organization in the world who is working to build healthier lives, free of cardiovascular disease (CVD) and stroke-the number-one and number-four killers in Connecticut. The AHA supports the concepts raised in S.B. 438 because we believe it will help in building healthier lives in Connecticut.

Stroke is the Nation's, and Connecticut's, No. 4 killer and a leading cause of long-term disability. Each year, almost 800,000 people suffer a stroke. More than 75% of these individuals have never experienced a stroke before, and almost 25% have a recurrent attack. More than 1,400 Connecticut residents die each year from stroke.<sup>1</sup>

Patients often do not recognize the symptoms of stroke and do not arrive at the hospital in a timely manner. Only slightly more than half (58%) of adults are able to recall at least one warning sign for stroke.<sup>2</sup> African Americans are nearly twice as likely as whites to have a first stroke, but fewer than half (49%) know at least one stroke warning sign.<sup>3</sup> Stroke survivors are no more likely than people who have not had a stroke to recognize all of its symptoms and to know to call 9-1-1.<sup>4</sup> On average, patients do not arrive at an Emergency Department until 3-6 hours after having a stroke. An effective system to support stroke survival is needed to increase survival rates and decrease the disabilities associated with stroke.<sup>5</sup>

Since the publication of the 2000 landmark article in the New England Journal of Medicine, hospitals across Connecticut have embraced the recommendations set forth by the Brain Attack Coalition and the American Heart Association/American Stroke Association (AHA/ASA) to develop stroke systems of care to ensure that patients receive the highest standard of stroke treatment and recovery care.

In 2007, The CT Department of Public Health (DPH) developed a voluntary program to designate hospitals as Primary Stroke Centers. While many hospitals in the state sought Primary Stroke Center certification, this new DPH program allowed additional acute care hospitals to implement a standardized stroke system of care at their facilities.

In June of 2013, the DPH announced that due to changes in federal funding, the agency would terminate its state stroke center designation program effective December 31, 2013. As such, there is the potential for hospitals to lose the capability to provide an approved, rapid, systematic approach to acute stroke evaluation, treatment and recovery care. This would directly affect areas in the state that have limited acute stroke care coverage.

Senate Bill 348 creates the regulatory framework for a "stroke systems of care" in Connecticut. A tiered system recognizing certified Acute Stroke Capable, Primary Stroke Centers (PSC) and Comprehensive Stroke Centers (CSC) based on Nationally Recognized Standards including AHA/ASA Guidelines, the Joint Commission certification program and other designations program deemed by the Department of Public

Health will give our residents the best chance to quickly access the appropriate level of stroke care. The coordination between hospitals representing different tiers within a stroke system of care will ensure that patients are rapidly treated and triaged to receive the level of care most appropriate to their condition.

An effective "stroke System care" possess essential components addressing a stroke patient's care from the time stroke symptoms are identified, to the emergency medical services' (EMS) response, to the transport and treatment in the hospital and rehabilitation. These areas include ensuring EMS personnel can quickly assess stroke patients and get them to the hospital with appropriate care within 15-20 minutes, establishing protocols to optimize the transfer of patients between hospitals offering different levels of care and within the different departments of a hospital, requiring the certification of stroke centers that follow treatment guidelines designed to improve patient care and outcomes, and using telemedicine, especially in rural areas, to ensure patients have 24/7 access to consultation and care.<sup>vi</sup>

Implementing such a system will significantly increase the proportion of patients who receive improved stroke care. Studies have shown patients admitted to primary and comprehensive stroke centers were more likely to receive thrombolytic therapy and had lower 30-day mortality rates when compared with patients admitted to non-certified hospitals.<sup>vii</sup>

The American Stroke Association, urges you to support this legislation that will work to improve the quality of care that stroke patients receive by developing and implementing a stroke systems of care, including the use of telemedicine to improve access to needed stroke care. The American Stroke Association is committed to advancing public policies that will allow children and adults with stroke to live longer and fuller lives. We look forward to working with you on this critical legislation.

Sincerely,



John M. Bailey II  
 American Heart Association/ Stroke Association  
 Government Relations Director  
 5 Brookside Drive  
 P.O. Box 5022  
 Wallingford, CT 06492

<sup>i</sup> Roger V, et al. Heart Disease and Stroke Statistics -- 2011 Update: A Report From the American Heart Association. Circulation. December 15, 2010

<sup>ii</sup> Ibid.

<sup>iii</sup> American Stroke Assn. African-American Stroke Awareness Survey, 2005.

<sup>iv</sup> Greenlund KJ. Keenan NL. Giles WH Zheng ZJ Neff LJ. Croft JB Mensah GA. Public recognition of major signs and symptoms of heart attack: seventeen states and the US Virgin Islands 2001. Am Heart J, 2004;147:1010-16.

<sup>v</sup> Centers for Disease Control and Prevention. First-ever county level report on stroke hospitalizations. CDC Press Release. March 28, 2008.

<sup>vi</sup> <http://newsroom.heart.org/news/stroke-systems-of-care-essential-to-reducing-deaths-disabilities>

<sup>vii</sup> Stroke. 2011 Dec;42(12):3387-97

## Public Health Committee Public Hearing

March 19, 2014

Testimony on Raised Bill 438  
An Act Concerning Certification of Stroke Centers

Good afternoon Senator Gerratana, Representative Johnson and distinguished members of the Public Health Committee. My name is Timothy Parsons, MD and I am here today to ask for your support for Senate Bill 438, An Act Concerning Certification of Stroke Centers.

I am a Neurologist and I have been the medical director of The Hospital of Central Connecticut's stroke center since July 2010. I started my medical training almost 14 years ago and since that time I have seen how stroke is approached in many different hospitals and healthcare settings, both as a physician and as a family member of multiple stroke victims.

Stroke is common and devastating. I can confidently say from both a personal and professional perspective that there is an alarming lack of standardization in how stroke is diagnosed and managed in Connecticut and the nation as a whole. Long gone are the days when the best treatment available to acute stroke patients was an aspirin and admission to the hospital to be evaluated by a neurologist the next day. The contemporary approach rightfully treats stroke as an emergency, in which the goal is to salvage as much brain tissue as possible before it is irreversibly damaged and functional abilities are lost.

It has been calculated that roughly 2 million neurons are lost *per minute* during an ischemic stroke.<sup>1</sup>

Despite the life-changing consequences and potential reversibility of stroke, approaching it as a treatable emergency is unfortunately not as widespread as was expected when acute therapies were developed in the 1990's. Even in institutions that have an interest in administering these brain-saving therapies, the process for actually doing so quickly may not be optimal, for various reasons. This translates into lost brain tissue and more disability.

Tissue plasminogen activator (known as TPA) is an FDA approved therapy for breaking up blood clots and reducing disability after stroke. The time window to give it is short. Based on a large study published in the Lancet, the chance of achieving a good outcome is doubled when patients receive TPA in the first 2 hours after stroke symptoms start. This benefit quickly drops to zero by 4.5 hours.<sup>2</sup> Many patients cannot receive it at all after 3 hours have passed. Not every stroke patient is a good candidate for this therapy and there are serious risks associated with its use. Selecting the right patients in a rapid manner can be very challenging.

I think it is clear that anyone interested in the brain health of their friends, family, and neighbors would like this therapy to be given quickly and by a capable team when it is needed.

Admission to specialized stroke units has been shown to increase use of TPA. Furthermore, stroke units have been demonstrated to lower post-stroke mortality as well<sup>3</sup>, mainly through differences in nursing care and attention to preventing post-stroke complications. Simply put, stroke centers save lives.

It is hard to argue that this level of care should not be standardized across the state and country. It is not easy in any hospital but it is achievable. The difficulties inherent in building and maintaining this level of care in a hospital or ED are enough that independent oversight is required, as it is for other special medical conditions like ST Elevation heart attacks or trauma.

Unfortunately, since Connecticut DPH stopped certifying stroke centers in 2013, only 16 of Connecticut's 30 hospital locations are currently certified in stroke care by an independent body. This leaves a substantial fraction of CT citizens too distant from a hospital that can prove its ability to treat stroke effectively. Without oversight, standardization will suffer, evidence-based therapies may or may not be given, and too many patients will not achieve their best possible outcome.

All stroke patients deserve outstanding care. Nobody deserves less than the standard of care. Please vote for a state-wide stroke care system that Connecticut can be proud of.

Sincerely,

Timothy C. Parsons, MD

Medical Director, Stroke Center  
The Hospital of Central Connecticut  
Hartford Healthcare, Central Region

References:

1. Stroke 2006; 37: 263-266
2. Lancet 2004; 363: 768-74
3. JAMA 2011, 305(4): 373-380

## Written Testimony

Public Health Committee Public Hearing  
March 19, 2014

Testimony on Raised Bill 438.  
An Act Concerning Certification of Stroke Centers  
INTRO:

Good afternoon Senator Gerratana, Representative Johnson and distinguished members of the Public Health Committee. My name is Rom Duckworth, from Sherman, CT and I am here today to ask for your support for Senate Bill 438, An Act Concerning Certification of Stroke Centers.

## BODY:

As a paramedic for more than 20 years I have provided emergency healthcare in the field in cities and towns in virtually every corner of Connecticut. As a healthcare educator I've had the opportunity to share my knowledge of emergency services with healthcare providers across the United States. When we talk about stroke, I emphasize that this is not a matter of life and death. To think of stroke as a matter of life and death is an oversimplification. It is not simply a matter of doing something right and the patient lives, or failing and they die. We know that when a patient has a stroke as minutes tick by, brain cells die. This is true, but it is also an oversimplification to have that kind of clinical discussion. As a stroke patient awaits definitive treatment a minute goes by and the brain cells die that hold the memory of that person's first kiss. Another minute goes by and the brain cells die that hold their memory of who their wife is. Another minute, and we lose the brain cells that hold that person's ability to walk, or talk, or feed themselves. This is not just what I learned from taking care of stroke patients. This is what I learned from my grandfather's stroke. That is why I seek to teach healthcare providers that they have to work together at every stage from EMS in the field, to emergent care in the emergency department, to critical care in the hospital, to seize every opportunity they can to save minutes, to save brain cells, to save every part of who that patient is. Stroke is the leading cause of long-term disability. The only way that we can work to change that for citizens of Connecticut is to provide a framework, a system of care where the EMT's and paramedics, doctors and nurses do not just work as hard as they can, but are able to work together to improve the outcome for stroke patients and their families.

## CONCLUSION:

In a number of different EMS systems in Connecticut I have cared for patients in high-rise apartments where hospitals were minutes away and rural farmhouses where hospitals were almost an hour away. These differences are the reason that we need this bill to provide all of the EMS systems in Connecticut with the guidance and protocols that will help them best integrate with the hospital stroke teams awaiting them at designated primary stroke centers throughout our state. It is for this reason that on behalf of Connecticut's EMS providers I ask you to pass this bill and help us care for the stroke patients and their families.