





#### A Stroke Alert Update

With the implementation of our new stroke alert process for EMS, there has been a tremendous improvement in door to CT times which has helped improve outcomes for our stroke patients. Since the policy went live on 8/13, there has been 11 stroke alerts, 9 of which arrived by EMS. Of these patients, 2 received IV t-PA. One patient received t-PA within 48 minutes of arrival time, the other within 33 minutes of arrival time. With the coordinated efforts of EMS and the ED staff, we have been able to meet our goal of t-PA administrations in less than 60 minutes!

I want to thank EMS for all of your hard work and dedication to our stroke program. Because stroke has been at the forefront this summer as we prepare for Joint Commission Primary Stroke Center certification, the September CME will focus on stroke emergencies. I invite you all to attend to discuss interesting stroke cases as well as learn about new research published this year by the American Heart Association/ American Stroke Association. In the meantime, feel free to contact me regarding any questions, comments or concerns you have regarding the stroke program at Waterbury Hospital.

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#### Waterbury Hospital – Trauma Time

The third tier trauma activation - HEAD INJURY ALERT!

The **HEAD INJURY ALERT** was implemented at Waterbury Hospital in May 2017 by the trauma program in an effort to provide best care to the anticoagulated older adult. Just as a Full or Modified trauma activation, the Head Injury Alert starts with identifying patients who meet the criteria for activation, and activing the proper trauma response to the Emergency Department.

The Head Injury Alert criteria is: 65+ yrs. old, fall from any height if anticoagulated with GCS 14-15 and evidence of a Head Injury within past 24 hours.

As this is a third tier of activation, if the patient meets any criteria to warrant a Full or Modified Trauma response, the higher level of activation should be called.

<u>What happens during this activation?</u> A junior surgical resident responds, along with the ED physician and an ED nurse, to assess the patient and quickly obtain a CT of the head. The goal is to obtain the Head CT within 30 minutes of the patient's arrival. Multiple studies have shown that anticoagulation in head trauma has increased rates of intracranial hemorrhage and mortality, so ruling out or finding this serious injury quickly is best.

<u>Which medications call for this activation?</u> The patient would meet the activation criteria for the Head Injury Alert if he/she is on any of the following medications:

> Warfarin (**Coumadin**) Clopidogrel (**Plavix**) Apixaban (**Eliquis**) Rivaroxaban (**Xarelto**) Dabigatran (**Pradaxa**)

Activating this trauma response provides best care, and being aware of the patient's arrival helps prepare the proper personnel. If a patient meets the criteria for a Head Injury Alert, please mention the activation for a <u>Head Injury Alert</u> when patching in.

Any questions, thoughts, ideas, concerns, or feedback in regards to the care of the trauma patient at Waterbury Hospital? Please contact <u>Monika Nelson, Trauma Program Coordinator</u> – monika.nelson@wtbyhosp.org

# NERVE AGENT INFORMATION FOR EMS



### Background

Nerve agents are extremely toxic chemical warfare agents. Several nerve agents exist and are generally categorized as either "high volatility" or "low volatility" chemicals, a measure of how likely they are to disperse in air. A high volatility nerve agent (easily dispersed in air) means that the exposure is likely to occur from breathing in its vapors resulting in the rapid onset of symptoms. A low volatility nerve agent (not easily dispersed in air) typically gets absorbed through the skin and has a delayed onset of signs and symptoms. An example of a high volatility nerve agent is sarin, whereas VX is a low volatility agent. In the body, a nerve agent exerts its effects by inhibiting an enzyme (acetylcholinesterase), resulting in acute illness – specifically, cholinergic crisis. Organophosphorus or carbamate pesticides produce similar effects to nerve agents.

### **Personal Protective Equipment (PPE)**

Emergency responders should have the proper training and education to work with hazardous materials. Those providing or assisting with patient care including decontamination should follow institutional policy for a chemical incident, wearing a recommended chemical protective suit, gloves, boots, and respiratory protection to prevent any secondary exposure from patients or objects. After patient decontamination is complete, providers should wear a gown and a double layer of nitrile gloves during patient contact.

### **Patient Decontamination**

A person potentially exposed to a nerve agent should be decontaminated whether they develop signs of acute illness or not.

Removal of clothing is a vital step to reduce ongoing and secondary exposure. Responders should pay particular attention to the risk of secondary exposure during clothing removal. Double bagging removed clothing is ideal. Wiping skin with a paper towel, dry wipe, or other cloth will also contribute to effective decontamination. This dry decontamination step can be performed by patients themselves and, along with clothing removal, should be done as early as possible.

If contamination with liquid agent is suspected, patients should be decontaminated with water, ideally with a highvolume, low-pressure shower, including soap if available, gentle rubbing with a soft cloth or sponge, and active drying with a clean towel after the shower.

If Reactive Skin Decontamination Lotion (RSDL) is available, it is recommended for spot decontamination.

See this <u>page</u> for additional information.

Clinical Effects of Nerve Agents versus Opioids		
	Nerve Agent	Opioid
Nose	Runny nose	Normal
Airway	Secretions/drooling/foaming at the mouth	Normal
Breathing / Respiratory status	Increased work of breathing/chest tightness/wheezing/difficulty in breathing/cough/"wet" fluid filled lungs - more prominent with inhaled exposure; dermal exposure may not cause bronchoconstriction or bronchorrhea	Decreased respiratory rate
Heart rate	Slowed	Normal
Mental \$tatus / Neurological	Slow/unconscious/seizures/confusion/slurred speech/ataxia/coma/absent reflexes/ tremors	Slow or unconscious/coma/seizures
Eyes	Tearing/small pupils-pinpoint	Small pupils-pinpoint
Skin	Wet/sweaty/cyanosis	Normal/cyanosis
Gastrointestinal	Belching/cramps/vomiting/diarrhea	Normal
GU	Urination	Normal
Muscles	Fatigue/weakness/twitching/ cramps	Normal

# **Upcoming Events:**

# Waterbury Hospital - CME - Stroke Emergencies

- September 19 @ 6PM
- Please RSVP to ryan.crichton@wtbyhosp.org so that the correct portion of refreshments can be ordered.

#### **Bantam Fire Company - CPR Refresher**

- September 9 @ 9:00 am
- 92 Doyle Road, Bantam CT
- Cost: \$15.00 to cover card fees