

# TriHealth Emergency Journal

# **ENA Lantern Awards Bestowed on Two TriHealth Emergency Departments**





Good Samaritan Hospital Western Ridge Emergency
Department and Bethesda Arrow Springs Emergency
Department are recipients of the 2020 ENA Lantern Award.

The Emergency Nurses Association (ENA) Lantern Award is a recognition award given to emergency departments that exemplify exceptional practice and innovative performance in the core areas of leadership, practice, education, advocacy and research. As an avenue to demonstrate an emergency department's accomplishments in incorporating evidence-based practice and innovation into emergency care, this award is a visible symbol of an emergency department's commitment to quality, safety and a healthy work environment. The Lantern Award serves as a visible symbol to the consumer that excellence is valued, and that exceptional care is provided in your emergency department.









## Comprehensive Stroke Center – Good Samaritan Hospital

Safe and ready, the TriHealth Neuroscience Institute (TNI) has been growing and we continue to develop to meet the neurologic needs of the communities we serve.

Our most recent and esteemed accomplishment is the crowning of Good Samaritan Hospital as our system's first and the region's second Comprehensive Stroke Center. Good Samaritan received the nod by The Joint Commission in early January 2020 after the survey last October. This means that we provide state-of-the-art care for the most complex stroke patients in our region. We have partnered with Mayfield Brain & Spine to provide neurosurgical care for large vessel occlusions (LVO), intracerebral hemorrhages (ICH) and subarachnoid hemorrhages (SAH).

Our neurological services do not stop at stroke care. At Good Samaritan we have expertise in: neurocritical care, seizures, skull base surgery, neuro oncology, complex spine procedures and neuromuscular disorders. Good Samaritan is the neurological hub of the TriHealth system and works with all TriHealth facilities to safely transfer care for complex and acute neurological disease and disorders.

As a Primary Stroke Center, Bethesda North Hospital is also capable of caring for LVO stroke patients. Our Emergency Department, Special Procedure Department and Intensive Care Unit are trained and ready to care for these complex

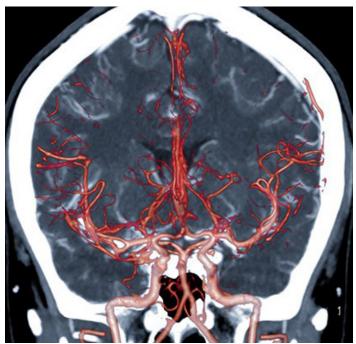
stroke patients 24 hours a day. It is our goal to become a Joint Commission certified Thrombectomy-Capable Stroke Center. We currently receive the highest volume of stroke patients to our Bethesda North Emergency Department and collaborate closely with the TNI to provide excellent care for our stroke patients across the care continuum. With Good Samaritan as our neuroscience hub, we transfer appropriate complex neuro patients to the Neuroscience Intensive Care Unit when needed.

Our other achievements in stroke and neurological care include three Joint Commission certified Acute Stroke Ready hospitals: Bethesda Butler Hospital, Bethesda Arrow Springs and Good Samaritan Western Ridge. These emergency departments are certified and equipped to triage stroke patients to the appropriate inpatient setting for continued care of their neurological events.

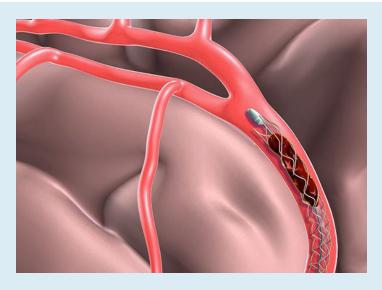
McCullough-Hyde Memorial Hospital is also prepared and ready for acute stroke patients. At McCullough-Hyde, we partner with the TNI to provide care for acute stroke and neurological events, transferring to both Bethesda North and Good Samaritan. Both Bethesda Butler and McCullough-Hyde are preparing to escalate to higher level stroke certifications to enhance our TriHealth stroke network reach to meet the needs of our communities.

#### **Lorel Studer**





## Should C-STAT Be Used in the Prehospital Setting



Acute ischemic stroke remains the leading cause of long-term disability in the United States. The protein tPA (tissue plasminogen activator) is used to break down blood clots present in a pulmonary embolism, myocardial infarction or stroke. The most common use is for ischemic strokes, which are caused by a blood clot that blocks a blood vessel in the brain.

With the blood flow to the brain obstructed, the brain cells begin to die in minutes. Early treatment with tPA can minimize brain damage. The effectiveness of this medication has been primarily limited to small-vessel strokes, and it was approved by the FDA to be given within three hours of stroke onset. Obviously, its benefit is time-dependent. Earlier treatment improves potential outcome.

The Cincinnati Prehospital Stroke Scale blossomed in the 1990s. It assisted EMS to screen for the presence of an acute stroke. EMS stroke alerts significantly aided in reducing times to treatment with IV tPA in ischemic stroke patients. The Cincinnati scale is based on three components: facial droop, arm drift and speech abnormality. It is a great tool but, it has limitations – it does not differentiate severe from non-severe strokes.

So, why not take the EMS medical assessment up a notch? The Cincinnati Stroke Triage Assessment Tool (C-STAT) is intended to recognize a stroke patient with an emergent large-vessel occlusion (ELVO). This type of obstruction has the potential to cause significant blood flow issues to an affected region of the cortex. C-STAT is also based on three components: conjugate gaze deviation, level of consciousness and arm weakness. A C-STAT score of 2 or greater is a positive indicator for a large occlusion. Recently, endovascular thrombectomy techniques have evolved, significantly improving the rates and speed of vessel revascularization. Innovative devices have the capability to reach and remove the large clot.

It has been documented that ELVO patients who experience longer procedure times result in more brain damage and worse outcomes. Since time means saving brain tissue, suspected ELVO patients would benefit from transport to a comprehensive stroke center.

#### **Debra Walker**

## Cincinnati Stroke Triage Assessment Tool — Screen for Large Occlusion Strokes ≥2 points is positive

Injury	Positive if	Value
Conjugate Gaze Deviation	Gaze is acutely impaired in one direction	2 points
Level of Consciousness	<ul> <li>Fail one or more of each of the following:</li> <li>Ask age and current month</li> <li>Ask to follow two commands: close eyes, open and close hands</li> </ul>	1 point
Arm Weakness	When held up, one or both arms drifts down to bed within 10 seconds	1 point

## Fairfield Township Fire Department - Butler County





The year was 1898. A group of township residents met and organized a volunteer fire department. They mounted a 50-gallon cylinder tank to a two-wheel cart and added a 50-foot hose. The water cart and fire extinguishers provided protection for the township until a fatal fire in 1944.

With donations and hard work, the first fire station was built. In 1946, the volunteers acquired their first fire truck – a 1930 Model-A Ford. The fire department continued to grow with additional equipment and manpower.

Fairfield Township Fire Department was the first volunteer fire department in Butler County to provide EMS to the community. Today, the fire department runs with two paramedic life squads and is led by Fire Chief Timothy J. Thomas Sr.

It has been asked: Why do firefighters run into a burning building when everyone else is running out? The reason is to help your fellow man. Volunteers have a connection to the community they serve and the residents who are their friends and neighbors.

As the number of calls increased so did the challenge to remain a volunteer department. In order to provide the necessary services and respond to the community's needs, the department transitioned into a staffed department. This combination fire department of full-time and part-time members assured the public they would be able to respond to calls 24/7.



## Loveland Symmes Fire Department - Clermont County









In 1877, village residents recognized the need for fire protection. They purchased two sets of ladders and 36 rubber buckets. The group of residents that provided Loveland's first fire protection was commonly referred to as the Ladder and Bucket Brigade. As Loveland grew, so did the need for better fire equipment. The next purchase was a hand-drawn, hand-powered pumping unit that carried 200 feet of fire hose.

In 1885, the department was known as the Miami Steam Fire Company. In 1886, firefighters were outfitted with rubber coats and boots, and more hose and a hose wagon were acquired.

In 1928, the department became known as the Loveland Fire Department.

In 1989, the Loveland Community Fire Department took over fire protection for Symmes Township and became known as the Loveland Symmes Fire Department.

It currently operate as a private fire company, governed by the LSFD Board of Directors, and contracts Fire and EMS services to Loveland, Symmes Township and Miami Township. Led by Fire Chief Otto Huber, the department operates four fire stations (two in Loveland and two in Symmes Township) that are staffed with firefighters and paramedics 24/7.







## Blanchester Marion Township Joint Fire District - Clinton County









This fire department covers a district of 22.7 square miles and protects over 8,700 residents. Blanchester Fire Department was born in the 1800s. It became a Joint Fire District in 1976. The fire apparatus was housed in the old Odd Fellows Building on Main Street.

The company is responsible for fire only and responds to an average of 180-200 fire emergencies a year. The township has approximately 1,200 EMS calls a year. EMS responses are covered by Blanchester EMS Incorporated.

Today, the fire department has two fire stations and is led by Fire Chief Donald Walker. Blanchester Marion Township Joint Fire District has 32 experienced, certified firefighters. This includes seven fire inspectors, four arson investigators, five hazmat technicians and three fire instructors. The department currently carries an ISO rating of 4.

These firefighters are knowledgeable and well-respected in their community and are very involved with their residents. They teach fire extinguisher classes at the assisted living complexes and fire prevention classes at Blanchester Schools.

## Sharonville Fire Department – Hamilton County





The City of Sharonville started out as the Village of Sharon in 1788. Like many other villages, fires happened and the village relied on members of the community to help put them out. This continued for many years up until around 1909 when a large fire consumed a number of buildings and the mayor decided that it was time to address the fire danger. From 1909 to 1917, the village purchased ladders and buckets and positioned them throughout the village for fire protection.

Around March of 1917, another large fire caused around \$25,000 in damages so the village decided to purchase a chemical truck from the C.H. Sutphen Company out of Columbus for \$495. This was basically a Double 35 pound fire extinguisher on wheels that could be pulled to a fire. In 1921, the village purchased its first motorized fire truck from the L.M. Howe Company for \$3,175.96.

In 1937, the village purchased a used ambulance for \$450, and it was run by a group of citizens called the Sharonville Life Saving Squad. This continued until sometime around 1950 when the Sharonville VFW Post took over the life squad. In 1960, the village took over the operation of the life squad and staffed it with members of the volunteer firemen and members of the VFW. A new ambulance was purchased for \$10,153.25.

The Sharonville Fire Department has grown over the years since our beginning, and we continue to evolve to meet the current and future needs of the community. We currently have three stations and are in the process of remodeling the fire station at the corner of Reading and Cornell Roads. With 74 members of the department, we look forward to the challenges that lie ahead.

#### **Assistant Fire Chief John Mackey**



## Lebanon Fire Department - Warren County





In 1815, the first provision for extinguishing fires in Lebanon was the organization of citizens into a fire-bucket brigade. In the event of a fire, every household had a duty to respond, without delay, with his bucket to the fire and assist in extinguishing it. The first hand-pumper was purchased in 1928.

An ordinance was passed on Feb. 4, 1836. organizing a fire department, consisting of three divisions: The Engine and Hose Company, the Hook and Ladder Company and the Bucket Company. The ordinance also provided for the election of one chief engineer, first and second assistant engineers, and three fire wardens. Each division was allowed to elect its own officers. A tax levy was passed the same year for the purchase of a new fire engine.

In 1871, Lebanon's first steam fire engine, The Belle of the West, was purchased from Selsby Manufacturing Company of Seneca Falls, NY, for a total cost of \$6,918.

In 1984, the City of Lebanon purchased the Lebanon Laundry Building, at 20 West Silver Street, for \$72,000. It was renovated into current Station 41. The cost for the renovation was \$210,000. The station went online on July 2, 1985.

Today, Lebanon Fire Department is led by Fire Chief Steve Johnson. He manages a combination department consisting of 54 full-time and part-time men and women. They serve over 20,000 people and cover 12 square miles. Lebanon averages 3,900 Fire and EMS runs a year.



EMS Week 2020

Celebrated by TriHealth May 17-23











#### Three Wins at Bethesda Butler: A Good Catch x 3



A "Good Catch" is
the recognition of an
individual who identified
and reported an incident,
primarily in IRIS, where
harm or potential
harm to a patient was
prevented or averted. Its
focus is to reward and
recognize team members,
as well as the importance of
patient safety and reporting
near-miss events in IRIS.

Three team members are selected each month as award recipients: one at Bethesda North Hospital, one at Good Samaritan Hospital, and one at one of our other TriHealth facilities. Winners are selected by a committee comprised of members from Patient Safety, Risk Management and Nursing Quality. Winners are presented with a certificate, lapel pin, gift card and roving trophy, and their photos are shared on The Bridge and in LinkNotes.

It was a pleasure for Patient Safety, and along with Bethesda Butler Hospital Leadership, to present Scott Cornwell with the Good Catch Award! Scott serves as the HRO Coach for Butler Inpatient Unit. On this particular day, he put his Safety and Reliability tools into practice when he had a gut feeling that something wasn't right with his patient's presentation. Scott was persistent and escalated his concern. Use of S&R tool "Think with a Questioning Attitude" led to additional testing that revealed a worsening condition. Thanks, Scott, for all you do to keep our patients safe.

Patient Safety, along with Pharmacy Leadership, presented Fiona Robertson with the Good Catch Award. Fiona used Safety and Reliability tool "Validate and Verify" to stop a medication from being ordered based on the patients' medical history and laboratory results. Thank you, Fiona, for always going above and beyond to keep our patients safe.

Patient Safety, along with Pharmacy and Nursing Leadership, had the pleasure to present Rishikesh Kulkarni with the Good Catch Award for his continued good catch reporting. Rishi was nominated by Anne Siebert for his continued attention to safety and use of safety and reliability tools. Rishi serves as an HRO Coach for Butler Pharmacy. Thank you, Rishi, for always going above and beyond to keep our patients safe.

#### **Rian Long**









## Congratulations!

#### Two New Acute Stroke Ready Coordinators for TriHealth

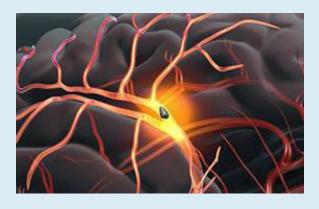
It is our pleasure to introduce TriHealth's Acute Stroke Ready Coordinators, Pamela Otten, MSN, RN, FF/NR-P, CEN, SCRN and Elizabeth Salyers, BSN, RN, CEN, SCRN. They will be sharing this new role and serving as the expert liaisons to provide oversight for Acute Stroke Ready preparedness for Good Samaritan Western Ridge, McCullough-Hyde Memorial Hospital, Bethesda Butler Hospital and Bethesda Arrow Springs. Pam and Liz will be responsible for providing guidance with process and quality improvements to ensure excellent care of our stroke patients.

Pam is a longtime TriHealth team member. After graduating from the Bethesda School of Nursing, she began her professional journey with us at Bethesda Oak in 1987 as a staff nurse in the Intensive Care Unit. It wasn't long before she realized her love for emergent patient care and began her ED tenure in the Emergency Department at Bethesda North Hospital. Pam has held a variety of positions within TriHealth including Good Samaritan Hospital ED Nurse Educator, Paramedic Program Faculty member, Firefighter/ Paramedic, Clinical Educator for the Simulation Center, and finally as Emergency Medical Services Coordinator for Good Samaritan. She remained and thrived in that position for 12 years. During that time Pam also earned both her bachelor's and master's degrees in nursing from Xavier and Mount Saint Joseph universities. Pam is a 2012 recipient of TriHealth Nursing's highest honor – the Directors' Award for Excellence.

Liz began her career at TriHealth at Bethesda North Hospital as a Telemetry Nurse in 2012. Since then, Liz has worked as a member of the TriHealth Event Medicine Team, Emergency Department RN at Good Samaritan and Charge Nurse in the Emergency Department at Bethesda Butler Hospital. Liz graduated from Honduras College of Nursing in 2012, in 2015 from Ohio University with her bachelor's in nursing and is presently in school obtaining her master's degree with a focus on adult geriatric, acute care nurse practitioner from Wright State University. Liz is the 2017 recipient of the Clinical Achievement Award from the Emergency Nurses Association.

We are honored to include Pam and Liz in the exciting growth that our stroke program is experiencing. We have no doubt they will both bring fresh knowledge, expertise and professionalism to our team.

**Lorel Studer** 





Pamela Otten



Elizabeth Salvers



### Handtevy Pediatric Emergency Standards



How is your confidence level when you are dispatched for a critical pediatric call? Maybe a 2-year-old in seizures or a 4-year-old drowning/cardiac arrest. If just thinking about it makes your stomach turn, then this might be worth a look.

The Handtevy Pediatric System is a performance-based resource for EMS agencies and providers that gives you a department-specific medication tool with your local protocol based information at your fingertips. Using your computer, tablet or handheld devices, Handtevy gives you everything you need to treat a critical child on scene quickly, effectivel, and with confidence.

Handtevy removes the need for complex mathematical calculations in front of mom and dad, as medication dosages and drips are customized to align 100% to your medication bag, protocols and displayed in volume. So, go ahead...stay on scene, perform confidently and save more lives.

#### But what size?

Do you remember this formula – Age/4 + 4 mm = internal diameter (ID)? Handtevy will display the correct size of every piece of equipment you carry for any size child. This quickly moves you to confidence and proficiency, yielding positive results.

But does it matter? Polk County (FL) Fire-Rescue thinks so. Polk County is the fourth largest fire department in Florida, making over 116,000 calls per year.

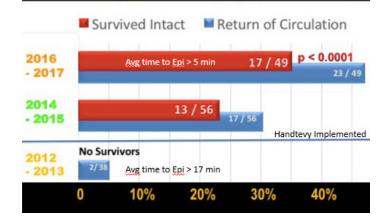
As published in the journal Resuscitation, these results from Polk County are staggering. In 2016/2017, 17 of 49 (35%) prehospital pediatric cardiac arrest patients survived intact to discharge from the hospital compared to zero (0) in 2012/2013 after implementing the Handtevy system in early 2014.

If you are interested in more information, please contact local instructors Debra Walker or Randy Johann or Handtevy directly at 1 866 867 3192 or info@handtevy.com

#### **Randy Johann**



## Pediatric Cardiac Arrest Survivors Pre-Intervention (2012-13) vs. Phase I (2014-15) & Phase II (2016-17)





Early On-Scene Management of Pediatric Out-of-Hospital Cardiac Arrest Can Result in Improved Chances for Neurologically-Intact Survival

Paul R. Banerjee a, b & E, Latha Ganti b, Paul E. Pepe a, c, Amninder Singh b, Abhishek Roka b, Raf A. Vittone a

## ACLS and PALS Classes





TriHealth EMS Coordinators are bringing AHA ACLS and PALS classes to local Fire and EMS departments. ACLS and PALS classes can be scheduled at your station on the second and fourth Wednesday of the month. The \$15 cost/person includes the AHA e-card.

To register: Contact Randy Johann at 513 865 5208 or

randall\_johann@TriHealth.com





#### How Important Is Hydration to Fire and EMS?

People have been taught to drink eight 8-ounce glasses of water per day. But is that really enough?

Obviously, there are several dynamics to consider:

- The climate the person is working in hot/humid or cool/ cold.
- The level of activity. Is the person fighting a fire or extricating a patient from a car? Or sitting at a computer typing reports?
- The body loses fluid in different venues: urination, perspiration and respiration. Firefighters and EMS personnel lose an average of 2.5 liters of fluid per day.

If a person's mental status is a little foggy throughout the day, maybe consider the level of fluid intake. Replacing daily fluids is critical to a healthy body. Appropriate fluid consumption keeps organs functioning properly. Being well-hydrated delivers nutrients to cells, regulates body temperature and keeps joints lubricated. It can also improve mood, sleep quality and thought processes.

Most people drink only when they are thirsty – not a good

idea. By the time the person feels thirsty, the body may already be dehydrated. Try drinking fluid throughout the day. The goal is to produce 1.5 liters or more of colorless or slightly yellow, odorless urine a day.

Drinking water is the best way to stay hydrated. Fruits and vegetables also contribute to the body's fluid intake. Apples, melons, strawberries, broccoli and carrots are all good choices. Usually foods high in fat are low in water – stay away from them. What about beverages such as coffee, tea and soda? Remember to limit drinks with caffeine. Caffeine acts as a diuretic. If the



shift includes intense activities, don't forget about electrolyte replacement. Sports drinks are a wonderful electrolyte replacement, but be careful of the sugar intake. Some of those beverages contain enormous amounts of sugar.

Comprehensive wellness is critical to daily activity performance. An individual's total health and well-being

prevents injury and illness. Fire and EMS personnel have to stay on the "ready." They never know what the next alarm will bring. This professional is taught to help and treat other people. This is a simple reminder to take care of YOU.











- Did you know that your stomach acid can dissolve razor blades?
- The human body has incredible regenerative powers. Did you know that you get a new stomach lining every three to four days? Your entire brain replaces itself every two months. Your liver – every six weeks. Your epidermis – every 35 days.
- We share 98.4% of our DNA with a chimp and 70% with a slug.
- An adult has fewer bones than a baby! Babies are born with 300 bones, but by the time they reach adulthood, these bones will have fused together to form 206 bones.
- Beards are the fastest growing hairs on the human body. If the average man never trimmed his beard, it would grow to nearly 30 feet long in his lifetime.
- Everyone has a unique smell, except identical twins – they smell the same!
- A human fetus acquires fingerprints at the age of three months.
- The fastest growing nail is on the middle finger.
- Every individual has a unique tongue print. Like fingerprints, your tongue print can be used to identify you.
- On average, people who dream more often and more vividly have higher IQs.
- Sneezes regularly exceed 100 mph while coughs clock in at about 60 mph.
- It is not possible to tickle yourself. When you try, you are aware of the exact time and manner in which the tickling will occur.

- Your nose is not as sensitive as a dog's. But it can remember 50,000 different scents.
- Your pet isn't the only one in the house with a shedding problem. Humans shed about 600,000 particles of skin every hour, or 1.5 pounds each year.
- We spend about 10% of our waking hours with our eyes closed – blinking. That's 10-20 times per minute.
- Your heartbeat changes and mimics the music you listen to. Music slows you down or revs you up depending upon the tempo.
- Athazagoraphobia is the fear of being ignored or forgotten. Try pronouncing it!
- Did you know that the children of identical twins are genetically siblings rather than cousins? This is because they share 25% of their DNA.
- Cobwebs actually have natural antiseptic and antifungal properties and were used in ancient Greece and Rome by physicians to make bandages. They supposedly speeded healing and reduced bleeding.
- Having a good cry really is good for you. The tears
  you shed when you cry contain stress hormones, and
  crying itself may actually stimulate the production
  of endorphins the body's natural painkiller as
  well as feel-good hormones such as oxytocin.
- The arteries of the blue whale the largest living creature on earth – are so big that a full-sized human being could swim through them.
- Enamel, found on our teeth, is the hardest substance in the human body.

