As healthcare providers, many medical transportation companies are looked upon to provide more than just ambulance and chair car transportation for patients. As the largest provider of 911 services in Massachusetts, Cataldo Ambulance is frequently called upon to support the operations of many area hospitals, nursing homes and communities. In order to fully support customers of every facet, Cataldo has included a number of service vehicles which can be deployed for a variety of reasons including community events, Mass Casualty Incidents, disaster recovery or to support local fire departments at the scene of a blaze. In addition to the many 24/7 supervisor vehicles utilized daily, additional resources are called upon frequently.

In responding to the request for services at a large scale community event, Cataldo Ambulance Service can deploy the area’s only electric powered transportation vehicle. The Gem Car is quiet, crowd friendly, environmentally responsible and has the ability to maneuver safely through large groups. Equipped with lights and sirens, the Gem Car is the size of a golf cart yet has the capability to transport and care for a patient on scene. This vehicle can be seen at events such as 4th of July fireworks celebrations, Halloween festivities in Salem or on the sidelines in Newton during the Boston Marathon.

In order to fully support the local fire departments in Cataldo’s twelve contracted municipalities, Cataldo Ambulance operates and maintains one of the regions only Incident Support Units. The Incident Support Unit (ISU) acts as an additional resource when dealing with an emergency situation. With three ISUs throughout the company, each Division garages, maintains and operates the large trailers. The ISU is intended to revitalize patients as well as emergency field workers. Particularly on a hot day, many fire fighters and crews do not have the time and resources to rehydrate before battling a fire or other emergency incident. The important resources that accompany the ISU assist EMS and fire crews to handle emergencies as best they can.

Mass Casualty Incidents are events that can include mass casualties which can overwhelm public health and medical services of the affected community. The severity or diversity of injuries in addition to the number of victims are large factors in determining whether a Mass Casualty Incident (MCI) requires additional resources outside of the community. Cataldo Ambulance Service is equipped with a state of the art MCI trailer which can treat up to 50 adult and pediatric patients. The Cataldo MCI Trailer includes three key components necessary to treat a mass casualty incident properly; triage and initial stabilization, definitive medical care, and evacuation.

Forefront is published semi-annually for friends and family of Cataldo Ambulance Service, to provide the most up to date information on Cataldo’s medical transportation services.

If you do not wish to receive this newsletter, please contact the Business Development Office (617) 625 - 0126 to be removed from our mailing list. Visit www.cataldoambulance.com to receive electronic information regarding our company.
Cataldo Ambulance Service is pleased to announce the recent awarding of the exclusive contract to provide emergency ambulance services to the City of Newton. The term of the contract began on December 28th, 2009 and will last for a period of three years. The official award was announced in early October to the management staff of Cataldo Ambulance Service by David Cohen, then long term Mayor of the City.

A large ambulance selection committee was assembled by the City to research and evaluate qualified companies which expressed interest after the City issued a formal Request for Proposals. After careful comparison of bidders, Cataldo, Fallon and previous provider American Medical Response, Cataldo Ambulance Service was determined to be the best provider for the City of Newton. In a December press conference Mayor Cohen introduced Cataldo Ambulance Service as the new provider, “with an outstanding record of service, a proven ability to implement new technologies and techniques to keep pace with the changing nature of modern emergency medical service, and a deep commitment to the communities they serve, Cataldo has emerged as a leader in their field. In Cataldo, we have found the very best company to perform the single most important service any municipal government provides to its residents.”

Cataldo’s Management staff feels that this decision is evidence of exceptional care and dedication that is delivered by all field staff throughout our divisions. We are honored that the city’s selection committee unanimously recommended Cataldo Ambulance to provide emergency services to the residents of Newton which is in excess of 83,000 people.

Underage Newton driver behind wheel in late-night crash

On April 17th, a Newton Father received a phone call that every parent dreads, his 15 year old son was involved in a car accident and was badly injured. As reported in the Newton TAB, “a 15-year-old was behind the wheel of an SUV early Saturday morning when the vehicle hit a tree, injuring the driver and three teenage passengers. One of the four involved in the accident was initially critically injured and remained...
New Devices Located on City of Newton Ambulance Saved Life

In patients whom are unresponsive or in severe respiratory failure, Paramedics routinely insert an endotracheal tube through the patient’s mouth and into the trachea. This technique, known as intubation, is sometimes not possible due to injury or position of the patient. Since some patients are unable to receive the endotracheal tube, a secondary device has been included on all of Cataldo’s Advanced Life Support ambulances.

The King LT-D (King Tube) is a disposable airway which when used correctly creates an alternative to trachael intubation or mask ventilation. The King LT-D device is a flexible airway management tool that provides the patient an airway for superior patient ventilation. The device is easy to insert, is 100% latex free and is sterile for single patient use. The King LT-D has been located on all ALS vehicles since January 2010.

Along with the King Tube, the EZ-IO Drill, a device used to provide safe access through the intraosseous space accessing the central vascular system within seconds, and the ZOLL Autopulse, a device used to perform efficient CPR on a patient, are both devices recently deployed on Cataldo’s ALS Ambulances. Although not mandated by the Commonwealth of Massachusetts, the King LT-D, EZ-IO Drill and the ZOLL Autopulse are all additional devices located on Cataldo’s ambulances. These new devices enhance patient care and provide easy to use techniques to Paramedics. For more information on the King LT-D, please visit the King Systems website at www.kingsystems.com or call 1-800-642-5464.

hospitalized.

Firefighters and police officers responded to the scene near 180 Hunnewell Ave. at 2:52 a.m. Saturday, where the SUV crashed its passenger side into a tree. Deputy Chief Israel Jimenez said the boy in the front passenger seat was trapped in the car, and firefighters needed 10 minutes to cut him out with the Jaws of Life. Besides cutting open the car from the side, firefighters had to cut under the boy’s foot because the car had crumpled in around it, Jimenez said. He said the boy was in and out of consciousness during the rescue.

Two people were taken to Children’s Hospital, one to Mass. General Hospital and one to Beth Israel. Jimenez praised the firefighters who got the passenger out while keeping him stabilized to prevent further injury. “They worked hard to extricate him as fast as possible,” he said.

The 15 year old passenger sustained serious injuries, Cataldo Paramedic Jason Seleyman wrote in his report, “we were able to secure his airway with a King Tube. The patient’s airway was clenched because he was seizing but after he was given Valium Jason was able to slide the King Tube in. This was my first time using the King Tube since it was a fairly new device located on the ambulance. That being said, I am very impressed with the speed and ease of use that the King Tube afforded us; fast and easy we had an airway. The young patient then got a 14g IV in his left arm. There was an open humerus fracture that was bleeding extensively which was dressed and controlled. The patient received a 14g needle which decompressed his right lung to allow air to escape outside of the chest cavity which relieved pressure on his lungs. A secondary vascular access site was also established utilizing the EZ-IO in the left proximal tibia.”

Successful Recovery Leads to Emotional Reunion

Three months later, the patient has recovered with no deficits. A written thank you from the patient’s Father explained to Newton Fire and Cataldo Ambulance Crews that his son suffered a brain injury and spent three weeks in the hospital and two in rehab. “We cannot express enough gratitude for what all of you did for our son and what you do every day and every night to serve our community. As a team, you saved his life and gave him a chance to make a full recovery. Not a day has passed during which I have not thought about what happened and the critical role that you all played, thank you!” In mid July, the patient and his family had the chance to meet and thank the Fire and EMS crews that saved this young man’s life.
Gas Ambulance More Efficient Than Diesel?

Since the early 1980s, American drivers have avoided diesel engines due to their reputation as being unreliable, noisy and polluting. Though today’s diesel cars have made improvements, still only a small percentage of vehicles in the U.S. are made of diesel engines. In the European market, diesel engines account for roughly 40% of new cars sold each year. The increase in demand for the diesel engine in Europe is the result of high gas prices. Additional benefits of a diesel engine include a higher energy content and more efficient combustion process which can allow cars to travel at least 30% further on a gallon of diesel compared to gasoline engines.

Diesel engines can also help reduce oil consumption which may translate to diesel vehicles emitting less global-warming pollution than those vehicles that run on gasoline. Adversely, today’s diesel engines are still not as clean as today’s average gasoline car. While diesel may produce less global-warming pollution, these engines produce more smog pollution and toxic matter in the air than a regular gasoline engine.

In 2010, new EPA emissions requirements forced high-tech diesel engines to convert to low-sulfur diesel fuel to meet tougher pollution standards. Unfortunately this reformulated diesel fuel has been proven to be more oil and carbon-intensive than reformulated gasoline, according to the US Department of Energy. This March, Ford Motor Company, the leading producer of ambulances, was unable to introduce an emissions compliant diesel engine for its 2010 model year ambulance. Instead, Ford reintroduced a gasoline engine ambulance back into the U.S. market, a shock for many in the industry. In 1988, Ford shocked the ambulance industry when it mandated a diesel engine ambulance. At the time, virtually all ambulances used a large gasoline engine. Today, 98% of ambulances in the U.S. operate with diesel engines.

The introduction of gas powered ambulances accompanies a lower initial purchase price for the vehicle and lower per-gallon price for a gas powered ambulance.

New Gasoline Powered Ambulance Rolls into Everett

Cataldo Ambulance Service introduced one of the first gas powered ambulances in the country as it began delivering 911 emergency services to the City of Everett. The new gas powered ambulance offers rapid start ups important for quick emergency response.

Diesel engines start when the fuel is ignited, however in cold weather (below 30), the air is not hot enough to ignite the diesel fuel; not an ideal situation for New England winters. Quick “out of shoot” times result in ambulance crews getting to their vehicle quickly and rely on rapid ignition. Generally speaking, gas engines rev faster and are able to reach higher rpm peaks than diesels which allows them to attain quicker 0-60 mph times. Also aiding in the quick response time in gas engines is weight. A diesel engine can weigh several hundred pounds more than a comparable gas model. Noise and vibration in the new gas ambulances will be minimized since switching from the diesel engines. During idle, the vibration and shake of diesel vehicles is apparent, while vibration and shake of a gas engine is minimal.

Ambulances often sit in idle at strategic locations throughout the city to afford quick response times to all sections of the city. During idle, a diesel engine can leave behind a smelly black soot which can aid in smog and toxic matter in the air.

The addition of the new gas ambulance is also a financial decision for many. Regular maintenance on a diesel vehicle is more costly due to a larger volume of oil, fuel filters and water separators and require more frequent servicing. While diesel engines may be slightly more durable with a lot of wear and tear, Cataldo Ambulance is excited about the new smoother, more efficient gas ambulance added to the fleet. The new gas powered ambulance is now in service in the City of Everett providing emergency 911 services.
Common Hospital Practice Becomes Paramedic Skill

Continuous Positive Airway Pressure (CPAP) is a technique used to force oxygen into the lungs of a patient unable to breathe adequately on their own. Although the practice has been common for many years within the walls of a hospital, only recently has it become a practice in the pre-hospital setting.

The CPAP is applied through a mask and head strap set-up and is the only system capable of delivering up to 100% humidified oxygen at flow rates of up to 140 LPM, thus satisfying all clinical requirements. The constant pressure the CPAP provides can dramatically reduce the work of breathing for patients with such conditions as ARDS, COPD or Pulmonary Edema.

The implementation of CPAP in the pre-hospital setting will help prevent the need for intubation of these patients, a skill commonly used by paramedics for securing and protecting the patient’s airway. While intubation is commonly considered the “gold standard” of advanced airway management, it can also cause complications later down the road to recovery. When intubation is applied to a patient who has a chronic underlying condition of Congestive Heart Failure (CHF), complications including weening the patient off the procedure can be very significant. By utilizing the CPAP device instead of intubating the CHF patient who is in severe distress, Paramedics can avoid these complications and the patients tend to do better in the long run.

Cataldo Ambulance Service has educated the ALS staff of over 200 paramedics in the use of the CPAP device and despite significant costs these devices have been placed on all of Cataldo’s Advanced Life Support ambulances. For more information on the CPAP mask please visit www.cpap.com.

Taking it to the Streets, Cataldo’s Mobile Training Lab is ready to roll

In a medical emergency, every second counts. Not very often do the same circumstances arise with one patient as they would another. The mobile simulation lab takes steps to prepare health care professionals as best as possible. Equipped with sophisticated scenarios, the simulation lab designs possible complications that may arise within the patient. The high-tech device allows medical professionals to do all of the techniques you would to a real patient including take pulses, start IVs and perform CPR.

The unique component of Cataldo’s simulation lab is the mobility which allows for the state-of-the-art training equipment to visit facilities and fire departments throughout the area to provide on site training. The mobile sim lab allows medical professionals to be exposed to realistic scenarios, an on-site trainer is nearby taping scenarios for discussion afterwards. Everything the individual says and does is recorded so the instructor can help them identify areas for improvement next time. The goal of simulation training is to avoid real life mistakes.

The mobile sim lab has been launched and has visited many facilities throughout the Boston area this summer. Continuing Education and training packages are available for interested parties. Please contact Cataldo’s Training Center for more information regarding continuing education credits, training packages and scenarios. To contact the Cataldo Training Center please call 781-873-4301.
Community By-stander CPR Program Launched by Aviv HomeCare, Atlantic Ambulance
The Jewish Journal

Aviv HomeCare and Atlantic Ambulance recently kicked off “The Beat Goes On” Free Bystander Training Series at Woodbridge Assisted Living in Peabody. Peabody Police Department joined community leaders including Mayor Michael Bonfanti and executives from Aviv Centers for Living and Atlantic Ambulance to launch the program.

Aviv Homecare and Atlantic Ambulance are partnering to strengthen the chain of survival by offering free by-stander CPR to the community. “I am proud to announce the partnership between Aviv HomeCare and Atlantic Ambulance to bring by-stander CPR training to the community. With the knowledge that death from sudden cardiac arrest is not inevitable if more people knew CPR, today we are conducting the first in what we hope will be a series of trainings for the North Shore community. Our goal is to train over 250 people on the North Shore through this program,” said Stephen H. Neff, Aviv Centers for Living President and CEO.

The program was developed to raise awareness that 75% of all sudden cardiac arrests happen at home, so being trained to perform cardiopulmonary resuscitation (CPR) can mean the difference between life and death for a loved one.

“A public service announcement stressing the importance of bystander CPR is currently airing on Peabody Access Television to encourage Peabody residents to take part in the training. Aviv Centers for Living is a not-for-profit organization that provides a range of quality senior care programs on Boston’s North Shore.

To learn more about The Beat Goes On or to schedule a training series, please call 978-854-1804."

Peabody Chamber Executive Director Deanne Healey stands with Atlantic Ambulance’s Rob White, Shaun O’Donnell, Robert Dionne, Peabody Mayor Michael Bonfanti, Stephen H. Neff, President and CEO, Aviv Centers for Living; Peabody Police Deputy Chief Scott Carriere and Peabody Police Department Sergeant Rich Girolimon stand together at the community CPR kick off event.
Complications of opiate intoxication and thus prolonged hypoventilation can result in brain injury or death. Although respiratory support in the form of a bag-valve-mask ventilation with supplemental oxygen is available to the EMT-Basic, reversal of the cause of hypoventilation is the definitive treatment. Continued bag-valve-mask ventilation until Advanced Life Support personnel arrives with the ability to administer an opiate antagonist still includes the risk of aspiration. Using Nasal Narcan, administration of the Naloxone medication via the intranasal route, will reduce or eliminate the need for ventilatory support sooner for patients with opiate intoxication. After intranasal administration, Naloxone is quickly absorbed across mucosal membranes and begins to exhibit the opiate combating effects nearly as rapidly as the intravenous route. In recent studies, research shows the average time for a patient to regain consciousness can be three to four minutes respectively after nasal Naloxone is administered.

Typically, Advanced Life Support personnel (ALS) are authorized to administer the Naloxone medication. Due to the high number of calls involving the use of narcotics, a special waiver was requested by Cataldo Ambulance Service which permits Basic Life Support personnel to administer the Nasal Narcan medication for the reversal of opiate related respiratory depression. Cataldo Ambulance Service has monitored and recorded all cases of EMT-B nasal Naloxone use since the inception of the special project waiver in 2006.

In March of 2010, Jeffrey Stewart, Cataldo’s Director of Clinical Services, had the opportunity to present data collected regarding the BLS Special Project waiver to the Commissioner of OEMS (Office of Emergency Medical Services). Also in attendance during this presentation was the Department of Public Health, Bureau of Substance Abuse and Boston EMS, whom were presenting findings on a similar project. Cataldo’s special waiver approves BLS personnel to administer 2 mg of Narcan via nasal atomizer without ALS assistance. Should a patient require more than 2 mg, Advanced Life Support personnel will administer a higher dose nasally or intravenously.

Data collected during a 39 ½ month period (June 2006 - October 2009), showed Nasal Narcan administration at a Basic Life Support level administered 193 times throughout Cataldo’s eleven 911 communities. Of the 193 cases, four events were reported where the patient was treated and transported by EMTs twice in the same day. Statistics through this project showed appropriate resources utilized, total time on scene through transport to facility and uses of ALS intercept during response.

Statistics Identify Need for Waiver in Local Community

Data collected also assisted the Revere Fire Department to obtain a separate Nasal Narcan Special Project waiver which will alleviate some administration by Cataldo Ambulance EMTs and Paramedics. In January 2010, Revere Fire Department became the first Fire Department at the first responder level to train their fire fighters in the use of Nasal Narcan. Cataldo Ambulance Service worked collaboratively with Revere Fire and fully supports their efforts to reduce the amount of deaths and disability from an opiate overdose.

Since 2006, Cataldo Ambulance Service tracks and monitors all cases of EMT-B nasal Naloxone use through a combination of efforts by on-duty Clinical Field Supervisors as well as review through the Clinical Services Department.

In 2008, Jeffrey Stewart and Cataldo’s Education Department received the Region IV EMS Research Group of the Year Award for the Nasal Narcan BLS Project. This award is presented to a person or group who successfully develops a new approach, technique, device, etc. to improve EMS in the Region.

Director of Clinical Services and Education, Jeffrey Stewart accepts the Region IV EMS Research Group of the Year Award with Dennis Cataldo and Cataldo’s Medical Director Larry Motley
Hydrogen cyanide, a colorless gas or liquid, is often present in smoke, particularly as plastics and fabrics are combusted which often occurs in house fires. Fire and EMS personnel, as first responders, may be at risk of cyanide poisoning during the course of a routine emergency response due to smoke inhalation.

Cyanide is an extremely toxic poison which can result in death within minutes if not treated rapidly and effectively. Cyanide poisoning can cause toxicity at the cellular level which can result in multisystem organ failure. Often times cyanide can result in death as the cyanide substitutes for oxygen in the body, preventing any oxygen from reaching essential organs. Due to the severity of cyanide poisoning, supplemental oxygen will not reverse the affects of cyanide poisoning rather an antidote is necessary for proper treatment.

Identifying Cyanide Poisoning in the Pre-hospital Setting

Signs and symptoms of high cyanide exposure may develop within minutes depending on the route and extent of exposure. Symptoms suggesting cyanide poisoning may include a mixture of visible soot in the airway, altered mental status (confusion, disorientation), seizures, dilated pupils, respiratory depression/arrest, and cardiovascular collapse. Often times, differentiating cyanide poisoning from carbon monoxide poisoning may be difficult in patients with smoke inhalation. The presence of dilated pupils along with altered mental status may be suggestive of cyanide poisoning rather than carbon monoxide poisoning.

Due to the severity of cyanide poisoning, it is important for first responders to be able to identify and treat quickly. A potential antidote new to the U.S. pre-hospital market for use in cyanide poisoning is hydroxocobalamin, a treatment consisting of intravenous injections. This treatment, used in the pre-hospital setting where firefighters often risk exposure and EMS providers treat smoke inhalation victims, converts cyanides into a form of vitamin B-12 and is then excreted in the urine. Hydroxocobalamin received FDA approval for use in the U.S. in December 2006 and has some major advantages for administration in the prehospital setting once cyanide poisoning is properly diagnosed. Cataldo Ambulance Service has been carrying the cyanide antidote since December 2009. Cataldo is one of the few services in the Boston Area that carries the drug. At $750 per dose (5g), the challenge that exists within the EMS system is securing proper funding to stock ambulances with this drug.


On October 29, 2009 the Metropolitan Boston Emergency Medical Services Council (MBEMSC) held their ninth annual awards banquet acknowledging individuals and organizations that have made a positive contribution to the field of EMS within Region IV.

Awards are presented in seventeen categories to area healthcare professionals and organizations. Among those recipients was Cataldo Ambulance Service Vice President, Dennis Cataldo as he was awarded the prestigious Region IV EMS Leader Award. This award is presented annually to an individual EMS Administrator who has become a leader in EMS and serves as a role model for other EMS Administrators throughout the region.

Dennis has made a true commitment to provide the best patient care possible in the pre-hospital setting in the communities Cataldo services. Cataldo continuously strives to be on the cutting edge of EMS by purchasing equipment and applying for waivers that go above and beyond state requirements.

The Cataldo Family continues to support numerous advanced training seminars to better prepare field staff in the event of a terrorist attack as well as Mass Casualty Incidents. Due to the family’s dedication to training and education, Cataldo Ambulance’s Emergency Medical Technicians and Paramedics are some of the most highly trained in the State.

Cataldo Ambulance Service will continue to strive as a leader in providing routine and emergency medical services. As the needs of the community and the patient change, Cataldo Ambulance continues to introduce innovative programs to ensure the highest level of care is available to everyone in their service areas.