

# ***BUCKS COUNTY EMS NEWSLETTER – OCTOBER 2005***

***(PUBLISHED EVERY OTHER MONTH AND MAILED TO PROVIDERS)***

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## **FROM THE DIRECTOR**

I would like to start with our thoughts and prayers for Newtown Borough, Newtown Borough Police Department, Saint Mary Medical Center staff, Joe Epp, all of the Bucks County police officers, fire, EMS that responded, and all those who were in the ER on that tragic night. Thank you to our CISD team who sprung into action that very night and worked with the affected people for the next week and a half. Also, thank you to the Philadelphia Police CISD Team for assisting Bucks County in our time of need.

Just a little bit of what our office has been doing the past 2 months. On September 2<sup>nd</sup>, we received a call from the State. They had received a request from Louisiana for EMS help. All across the State we had surge teams doing paperwork and assembling crews. At 0200 on September 3<sup>rd</sup>, all 10 surge teams assembled at the EHS office completed State paperwork, gear was issued, and we were then placed in a holding position. Team members slept on cots in our parking lot, hallways and even in the kitchen. During this time there were many conference calls held with the state EMS Office and all 16 Regional Councils, keeping us informed of the situation. The last conference call was to inform all of the regions that Louisiana only needed 20 ambulances at that time. The Bucks County surge teams were not one of the 20 going, so we packed up and let everyone know that this could happen at anytime. We thank Squads 100, 108, 115, 124, 125 x 2 crews, 126, 143, 154, 185 for participating and your understanding of the information we received hours later.

Then on September 30<sup>th</sup>, we had a conference call again, Bucks would be deploying 5 teams with 4 crew members each. We did not assemble everyone

this time until we knew for sure that the State had received all the requesting paperwork for an additional 20 ambulances from Louisiana. On Saturday at 1330 we had another conference call that confirmed we were going. We assembled the crews as quickly as possible, drove to Morgantown, met with 2 crews from Montgomery County and 5 from Chester County. They were on their way, planning to meet 8 other surge units from the western part of the State somewhere in Tennessee. We thank Squads 124, 125, 126, 143, 185 and the providers that participated in the surge program.

In the middle of the surge non-deployment and deployment, Bucks County also provided emergency medical service for the 1st day of the 3-day breast cancer walk September 23<sup>rd</sup> - starting at Sesame Place and ending at the new Warminster Community Park. There were 3500 walkers registered with approx 2200 actually walking. Squads 168, 145 and 115 staged, drove the route in their first due areas along with helping the next squad in their territory when we had many patients at one time, and they even assisted the Saint Mary Medical Centers providers in the medical tents at the rest stations. Squad 122 had the overnight coverage at the tent city from 2000 to 0800, helping in their triage tent and then providing care until all walkers crossed into Montgomery County on Saturday morning. We would like to thank the squads and all providers for participating in such a large event.

Bucks County EMS at its best - helping from Pennsylvania to Louisiana.

## CPI

I have received numerous inquiries in reference to “Medical Duct Tape (white duct tape)” and its use to substitute for backboard straps. I understand the financial expense of backboard straps and they are frequently lost when sent to a facility. “Medical Duct Tape” is strong and is a great temporary fix for many home improvements. First, as far as licensure goes “medical duct tape” is not a substitute for nine foot backboard straps. I spoke to a vendor in reference to the use of this tape as a method to secure patients to a backboard. He stated “I wouldn’t do that, it is duct tape.” He also states duct tape has good strength, but is not sure if three strips would hold a person in place. Duct tape is also designed to rip easily, so if it gets snagged it may start to rip. Another concern; can it be readjusted if necessary without losing its integrity? I could not find any data to support the use of duct tape to secure patients to a backboard. I’m sure if you use **enough** of any type tape it would hold a person on a backboard (even scotch tape). If anyone has any data supporting the use of duct tape to secure patients to a backboard; this including the proper way in taping a patient to the backboard, please forward this to me. Currently, no providers are taught to secure patients with duct tape. Services and providers are taking the risk themselves using duct tape. The best alternatives to expensive straps are disposable straps. Although they are more expensive than duct tape, they are designed to hold patients on backboards.

## DATA COLLECTION

EMSPPro (Pinpoint) User Session  
Friday, November 4, 2005  
3:30 pm at Squad 185  
You do not need to register, you can just show up.

These sessions are designed to answer questions and better familiarize the system users in entering PCR’s. The sessions are also to make changes to the application to improve usability and customize the PCR’s to Bucks County’s needs. At the previous session in July, we kept the changes to a minimum to test this process. There was minimal feedback on the changes and they appeared to be accepted well. If you are interested in attending,

please bring your thoughts and ideas on how to improve the system.

## TRAINING/CON-ED

**Continuing Education Classes** – Continuing education classes are registered on the State’s website. Please refer to the website, at [www.health.state.pa.us/emso](http://www.health.state.pa.us/emso) to search around for classes.

**Learning Management System (LMS)** – Are you registered? This is the State’s website where you can complete con-ed courses and obtain all your con-ed credits. You can subscribe to it through our website. There is a link on our website called LMS. After you complete the registration form, you will receive a confirmation email from the State in 5-7 business days. After you complete a course, it will automatically be transferred to your con-ed report in 3-4 weeks.

**Email Group** – If you wish to be added to our email group, please send an email to Jason at [jsdiefenderfer@co.bucks.pa.us](mailto:jsdiefenderfer@co.bucks.pa.us). In your email, please include your first name, last name, and level of certification.

## WEBSITE

Please refer to our website, [www.bcehc.org](http://www.bcehc.org) for information on courses, protocols, licensure, etc.

## MEDICAL DIRECTOR’S CORNER

**Confirmation of successful endotracheal tube placement in the prehospital setting**  
**Gerald Wydro, MD**  
**Regional Medical Director**  
*Part one of two*

Intubation skill is likely the most bragged about procedural activity in EMS. The ability of a paramedic to intubate a patient in the most austere environment is the stuff of legend. Although not much has changed in the overall procedure of intubation, the science of endotracheal tube confirmation has come a long way in recent years. The old adage of clear and equal breath sounds with nothing over the stomach does not hold water anymore. Recent data suggests that the missed/

dislodged endotracheal tube (ETT) rates in some EMS systems may be as high as 25%! In this 2 part series, we will review the state of the art in confirmation of ETT placement.

The gold standard of a successfully placed endotracheal tube remains direct visualization. However, since we are all not using the Airway Cam ® to document such placement, the time has come to use some tested “objective measures” of endotracheal tube placement. The three most commonly used objective measures are:

- 1) Esophageal Detector Device (EDD)
- 2) Colorimetric End Tidal CO<sub>2</sub>
- 3) Continuous End Tidal CO<sub>2</sub> Capnography

The esophageal detector device (EDD) is a simple handheld tool that allows for assessment of esophageal endotracheal tube placement. The concept is simple, by applying a very small negative pressure on the ETT, the EDD will reinflate briskly if the tube is in the trachea, while very slowly or not at all if the tube is in the esophagus. The reason is simply that the muscular wall of the esophagus will collapse over the end of the endotracheal tube if an esophageal tube placement has occurred. If the tube is in the trachea, the trachea will not collapse because of the added support provided by the tracheal cartilage rings. Most recommendations for the use of the EDD call for it to be applied as the first device before any ventilation has occurred via the ETT. The introduction of any air into the tube can cause a potential false positive reinflation of the EDD even if placed in the esophagus. The EDD should not be considered if any positive pressure ventilation has occurred via the ETT before the application of the device.

Protocols for the use of the EDD generally recommend it to be used for cardiac arrest when the collapse time is not known or greater than 5 minutes before the arrival of EMS. In these patients, there is a potential for minimal or no exhaled CO<sub>2</sub> and this may limit the effectiveness of the ETCO<sub>2</sub> devices. For the patient with a pulse and even minimal respiratory effort, the current resuscitation data recommends going directly to the CO<sub>2</sub> devices, in lieu of the EDD. If the EDD reinflates quickly then proceed with other methods of ETT confirmation (ETCO<sub>2</sub>, auscultation of breath sounds, etc). If the EDD does not reinflate, or takes longer than a few

seconds, the ETT should be immediately removed as this tube is an esophageal placement. As with all care provided in the prehospital setting, appropriate documentation of the use and results of the EDD are critical for maximal medical-legal protection.

In the second part of this series, we will discuss the various methods of ETCO<sub>2</sub> in confirming appropriate ETT placement.

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