Contra Costa Emergency Medical Services

CONTRA COSTA HEALTH SERVICES

EMS Best Practices

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Recruiting Best Practice Virtual Advisors

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Getting information, updates and important feedback to those in the field is a real challenge. Over the last few months we have been exploring how can we communicate effectively with the field. We understand that things from an EMS Agency point of view can look a lot different from when you are at an accident scene, inside a patient's home, or busy emergency room. During our 30-year EMS celebration on November 16th many of you commented that our EMS Best Practices newsletter has been helpful in this process. That's great! But we want to do even better so we are launching a new program to improve our ability to hear from the field on topics that are important to the EMS system-**EMS Best Practices Virtual Advisors.**

Interested in improving EMS care in the field? Know a better way of providing safe patient care? Have an idea to fix a problem or issue with the system? We need your input! We are seeking EMTs and Medics of all skill levels to participate in anonymous surveys and electronic focus groups from the comfort of your PC. The time commitment is minimal...one survey a month (at the most) on topics that EMS is working on. Participants can join or opt out at any time. How is it going to work? **To join, send your name, if you are a medic or EMT, number of years of experience, agency and email address to pfrost@hsd.cccounty.us.** You will be put on an master email list and when questions or input is needed we will send you an email with a link to a site that allows you to answer the survey or question anonymously. Make a difference and give us your input on important issues facing our EMS system.

Best Practice Is Timely PCR ED Delivery!

- PCR for each and every patient contact ★
- Give draft PCR to appropriate ED provider prior to leaving ★
- Complete final ePCR ASAP and fax ★
- Notify chain of command if problems ★

30 Years of Contra Costa EMS 1977-2007

EZIO Tip…..Don't forget to FLUSH!

EZIO is a breeze and gaining acceptance rapidly but our early experience identified some issues. Providers did not always flush the IO adequately and because of that thought the IO was not working. Flushing requires a fair amount of pressure. Make sure you flush well!

Fire Agency ePCR Implementation Presents Challenges

Fire agencies in Contra Costa continue to face challenges in successful electronic PCR (ePCR) implementation which creates frustrations for both EMS providers and emergency room personnel who need field care documentation to appropriately treat the patient. Contra Costa EMS is actively working with our Fire Agencies to resolve these difficulties. Retired SRVFPD Asstant Chief Chris Suter in helping us identify the critical issues and to facilitate real solutions. Fax server problems have been especially challenging affecting delivery of ePCRs to the ED.

In the meantime we have had to do work-arounds such as asking medics to leave draft paper PCRs and run sheets**. Remember, if you are a Fire Transport agency or first responder fire medic retaining care of the patient...it is the expectation that a draft PCR or run sheet be left in the ED before you leave the ED!** See your EMS training staff to find out what your agency recommends until things improve. Timely ED delivery of documentation of care is an individual responsibility. Make sure your hard work is accurately documented and delivered to the doctors and nurses caring for your patient. **Emergency room treatment of the patient depends on it!**

Electronic PCR implementation can be challenging and takes time to work out solutions. Your patience and professionalism is important as we work through these challenges.

Amiodarone Update

During recent EMS update training there have been questions about the use of Amiodarone in our ventricular fibrillation treatment guideline. Amiodarone is given as an initial bolus of 300mg then an additional bolus of 150 mg only if the V-fib persists. So what happens if the rhythm converts to a perfusing rhythm after defibrillation alone or the first dose of amiodarone? Do you give more? ACLS guidelines do not give any firm guidance on this issue and only state that an amiodarone infusion could be "considered." ACLS guidelines do not recommend giving amiodarone to patients following conversion from pulseless VT/VF by shock alone. For this reason our treatment guideline does NOT recommend amiodarone infusion post-resuscitation.

In cases where Ventricular tachycardia recurs amiodarone can be given as an intermittent push of 150 mg over 10 minutes and is covered in our VT treatment guideline. This is a new drug in our system and we will be monitoring its use. If AHA guidelines become more definitive or our experience indicates we need to consider changes we will. Amiodarone is also incompatible with many other medications when given IV including heparin, and sodium bicarbonate. Flushing with 20 ml saline between medications is always best practice!

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Field Talk: Spinal Immobilization and Scoop Stretchers

Joe Barger MD. EMS Medical Director

Here's the Scoop…..

Recently a question came to the EMS Agency about use of scoop stretchers in situations calling for spinal immobilization. The scoop stretcher is advantageous for patients with hip fractures and pelvic fractures, but is not appropriate for use when spinal immobilization is indicated. In situations in which patients may be initially moved by scoop stretcher, they should be transferred to a long board if immobilization is indicated.

Spinal immobilization

Spinal immobilization is a standard BLS procedure but it has the potential to cause significant patient discomfort. For that reason, several years ago we instituted procedures consistent with the State of Maine spinal immobilization protocol. On occasion, we find that spinal immobilization is not done when indicated.

While we do not have many cases, we have found a recurrent finding in several cases in which immobilization was not done – patients who have significant distracting injuries. A patient with a long bone fracture or significant painful soft tissue injuries that also has had a mechanism capable of causing spinal injuries needs to have spinal immobilization.

One recent example was a motorcycle accident victim with a broken leg – the accident apparently occurred at a fairly slow speed. The fracture itself not only suggests a forceful enough mechanism to lead to spinal injury but also makes it impossible to accurately assess spinal findings because of the distraction of pain.

It's important to remember that communication difficulties, alcohol or drug intoxication, and head injury all can interfere with assessment for spinal immobilization, and "clearance" of those patients cannot occur in the field.

Best Practice Topics coming up in 2008

EMS has been working with your agencies QI and Training coordinators to address many issues facing our system. Currently the Fire-EMS Consortium is developing new training and curriculum on best practice advanced airway management using Dr. Levitan's Airway training model. Agency EMS QI Coordinators are adapting communication training designed to improve effective communication and decrease conflicts during patient handoffs. This year we will also be looking at our high risk high frequency populations including occult head trauma in elderly patients who fall, behavioral emergency patients who require restraint and improving our EMS provider skills in verbal de-escalation. If you have experiences to share on these issues contact Pat Frost at pfrost@hsd.cccounty.us.

STEMI Center Program Coming to Contra Costa ..July 2008

EMS is working to establish our STEMI Center Program. Dr. Barger is working with our hospitals and county cardiac experts to make this a reality. We hope to work through the STEMI center designation process over the next 6 months.

Trauma patient transport

Joe Barger MD. EMS Medical Director

The EMS Agency has recently undertaken a comprehensive look at use of ground and helicopter resources for trauma patients. We are still analyzing data and will be working with many EMS participants to optimize our use of transport resources. Part of the study involves a detailed look at transport times from several areas in the county by both helicopter and ground. We are also looking at some clinical issues such as airway management and how that fits into utilization of air resources.

The time elapsed during patient transport by helicopter is comprised of many different time intervals. The biggest time variable occurs when rendezvous is necessary, which happens in over 90% of cases. Time spent in transport to the landing zone (LZ) and any wait for helicopter resources at the LZ diminishes the time-effectiveness of air transports, and in some instances the helicopter transport may be less speedy than ground transport.

Ground transport is less complex by nature in most instances, and our data is helping to define those areas of the county that favor either ground transport or air transport (with prevailing traffic conditions). Morning commute hours are actually the least busy time of the day with regard to trauma transports, while late evening hours are the busiest.

The patient's clinical condition is the other main consideration. Patients with critical trauma injuries need the most rapid transport. Advanced airway techniques (primarily using rapid sequence induction) are used in around 15% of patients flown to the trauma center and these patients as a group are among our most critically injured patients.

We will be seeking ways to optimize the coordination when helicopters are used to speed transport to the trauma center. We also will be investigating mechanisms to better identify those patients who may need advanced airway skills and to better identify other critical patients most in need of rapid transport. The decision to use helicopter transport is intertwined with trauma triage and patient assessment in the setting of challenging scene conditions and dynamic changes in patient status. There are few other situations in EMS that have the complexity of these cases. We hope to develop pathways to aid in decision-making through our analysis and through discussion with all involved partners in care.

Please contact us with your comments or concerns. Visit our website @ www.cccems.org