

# OFFICE OF PREHOSPITAL CARE NEWSLETTER

## Aspirin for BLS Jeremy T. Cushman, MD MS

So aspirin has hit your rigs and you've trained on its use. What's the big deal? Why was this added to the BLS formulary and what do we have to look out for?

Of all medications, procedures, and treatments, aspirin continues to be the single most effective item to improve survival when you're having "the big one". The benefit of aspirin in patients with acute coronary syndromes was proven over twenty years ago. Since, studies have demonstrated a 50-70% reduction in both myocardial infarction and death. There are few treatments in medicine that have such a pronounced effect on morbidity and mortality. The benefits of aspirin are so profound that some experts actually advocate desensitization in patients who are allergic.

Aspirin works on platelets. Platelets help your blood clot, and in order for platelets to stick together, they need a particular enzyme to activate a receptor on the surface of the platelet, allowing the platelet to become "sticky" if you will. Aspirin blocks this enzyme, so the platelet can't

activate its "sticky" receptor and the platelets can't stick together. Aspirin works differently than "blood thinners" such as coumadin (warfarin) which acts on a set of clotting factors in the plasma of your blood. That's why it's OK to give aspirin to patients on blood thinners – because they work by two different mechanisms.

Indications, as you know, are pretty simple: chest pain of presumed cardiac etiology. Chest pain due to a motor vehicle crash, baseball bat to the chest, suspected pneumonia and so forth don't count. Obviously your patient with chest pain of presumed cardiac etiology will soon be joined by ALS, and so if you ever have doubt as to whether or not you should give aspirin, you could wait until the ALS provider arrives. The few minute delay to be sure the patient needs it will not affect the patient's outcome.

Contraindications you also know. Obviously, anyone with an allergy should not receive it. Anyone with active bleeding should not receive it. Anyone

that can't chew or swallow shouldn't receive it. Then there is the long list of "relative" contraindications such as a history of severe gastritis or ulcers. Given the profound benefits of aspirin, these are relative contraindications because not taking the medication could deprive the patient of the significant benefits of aspirin. Make it easy on yourself, stick with your absolute contraindications to guide who doesn't get aspirin. Keep in mind, however, that aspirin can often precipitate wheezing in patients with a history of asthma. So although this may be a known side effect, having a history of asthma should not prevent you from giving this important medication.

Although aspirin's effects last from 24-48 hours, anyone that is having chest pain of presumed cardiac etiology should receive a dose unless they took aspirin immediately prior to your arrival. As you can see, provided your indications are met and your contraindications are excluded, the benefits of aspirin administration are a significant and important addition to our BLS formulary.

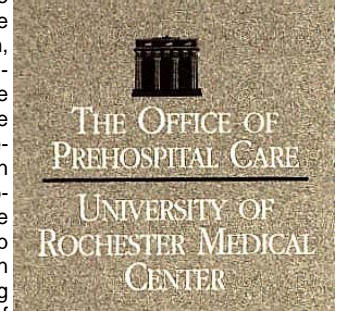
that will be available for our use.

The OPC mailing address will not change—601 Elmwood Avenue, Box 655, Rochester, NY 14642. However, the phone numbers will change. As soon as the new numbers have been assigned, OPC will be getting the information out to all agencies.

OPC will be closed starting April 30th and will re-open May 7th. During that time the PCRnet fax server will not be able to accept faxes. If you have any questions please contact OPC.

VOLUME 10

APRIL 2007



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## OPC Moving, Again Manish N. Shah, MD MPH

As some of you may have heard, the Strong Memorial Hospital Emergency Department is about to expand into the office space occupied by the OPC and the Department faculty. This is going to create more beds for the Emergency Department, but it will result in OPC moving out of that space.

During the first week of May all of the administrative and faculty offices for the University of Rochester, Department of Emergency Medicine, which includes OPC,

will be moving to 120 Corporate Woods, Suite 100. Corporate Woods is the office park just south of 390, off East Henrietta.

This move will have significant benefits for the EMS community. It will be much easier to come to OPC, whether it is for meetings, to pick up PCR's, or any other needs. There will be no need to struggle with parking issues, long walks through the hospital, or getting lost. Also, the new offices will have conference rooms and educational space



## Rochester—A Leader in EMS Research

Manish N. Shah, MD MPH

Advancing the science of EMS is a major goal of OPC and the University of Rochester, Division of EMS. With the support of EMS providers through the system, a significant amount of research continues. At the recent National Association of EMS Physicians Annual Meeting, 9% of all research presented came from this region. Even more significant, a study presented by Dr. Rueckmann, which examined influenza vaccination among Rural Metro EMS providers, received the "Best Poster Award". Congratulations to Dr. Rueckmann and all that helped him perform that research.

There are a number of new studies that have received funding and have started or soon will start:

**Trauma Triage Study:** The Centers for Disease Control have funded Drs. Brooke Lerner, Manish Shah and Jeremy Cushman to evaluate the trauma triage criteria that we operate under. This study started in March and will go for approximately two years. When you bring an adult patient with any sort

of traumatic injury (from a bullet wound to sprained ankle), a research assistant may ask you a few questions. If no research assistant is present, there are forms in the EMS room to fill out, if you would like to provide information about the traumatic injury.

**Approaches to Patient Safety Study:** The Society for Academic Emergency Medicine and the Emergency Medicine Patient Safety Foundation have funded Dr. Fairbanks to evaluate and improve the usability of health information systems used in emergency departments. It is expected that this study will lead to future similar work in EMS ePCR systems.

**EMS-Caring for Rochester's Elders:** Dr. Shah has received funding from the National Institutes of Health to implement and evaluate an EMS-based program to evaluate the ability of EMS to screen older adults to identify those with certain risk and unmet needs. This study will be operating this summer.

There are also a number of studies that are under review at various funding agencies. If these receive funding, we will be able to start asking other interesting questions and work to improve the care we provide our patients.

The continued success of EMS research in this region and our reputation as a national leader in EMS research is due to the tremendous support of the EMS providers who participate in the Monroe-Livingston Region and the commitment of the EMS providers to advancing EMS care. Thank you all for your help.

### Best Wishes to Jamie Syrett, MD Sheri Stollo, BSN, EMT-P

For those of you who don't know, Dr. Jamie Syrett is leaving Rochester at the end of May. He has accepted a job in Charlotte, North Carolina.

Dr. Syrett (better known as Jamie to most of us) started at the University of Rochester Medical Center as a Research Fellow in 1999. He completed residency at Strong and

was Chief Resident from 2002-2003. He was the EMS Fellow from 2003-2004. Since 2003, he has been an Emergency Department attending physician at both Strong and Highland.

During his time in Rochester, Jamie has been active in EMS. He has worked as a paramedic and as a leader at Henrietta Volunteer Ambulance. He has actively taught in EMS at all levels, including residents, physicians, and EMS providers.

He was an instructor in the RSI program when it was initiated. Jamie was also an active member of REMAC until January

2007.

In addition to all of his other activities, Jamie has produced a large amount of EMS research. Topics have included ED Utilization, prehospital 12 lead ECGs, and bioterrorism. He has presented many abstracts at national meetings and published a number of papers.

We would like to wish Jamie well in his future endeavors.

### ePCR Update Sheri Stollo, BSN, EMT-P

In February the MLREMS Ad Hoc Committee hosted a general ePCR meeting. The meeting was well attended by EMS representatives from Monroe and Livingston Counties. Minutes from the meeting are available on the MLREMS web site ([www.mlrems.org](http://www.mlrems.org)).

One question that could not be answered was what regulations apply to BLS first response agencies, particularly those that have albuterol, epi-pens, and blood glucose measurement. Are those agencies required to submit PCR's to the State? After speaking with the State, BLS FR agencies are not required to submit data to the State. How-

ever it is up to the local REMAC as to whether the REMAC will require the data for regional QA reporting for agencies performing services under the jurisdiction of the REMAC. Our REMAC will be discussing this.

Both sub-committees of the Committee met during March. The Review sub-committee has created a template to "rate" the vendors. Their plan is to publish a list in early June rating the various ePCR vendors so that agencies can look at all vendors at once and compare them. Bill Sheahan and Randy Campbell are chairing the subcommittee, and we encourage you to contact them for information.

The Operations sub-committee continues

its work on the Memorandum of Understanding, and a checklist for agencies to use as they make the switch over to electronic PCR's. In addition a "cheat" sheet is being made up that can be used in place of the PCRnet PCR's for agencies to use to transfer vital information at the hospital and then if needed, return to base to complete the PCR. Remember to contact Sheri Stollo at OPC if your agency contracts with a vendor.

At this time there are a number of agencies that have made the transition to electronic PCR's. In addition there are a few more that have signed on and have live dates within the next couple of months.

## Adequate Pain Control becomes a standard of care in the MLREMS Region

Rollin J (Terry) Fairbanks, MD MS NREMT-P

By now you've heard about one of the most progressive parts of the protocol updates: the first dose of morphine is now a standing order for patients with moderate to severe pain who have isolated extremity trauma, amputations, or burns. In addition, the protocol encourages ALS providers to call for orders to treat other patients in pain. For example, this might include a patient with presumed kidney stone pain, back pain, etc. Two years ago the NYS Department of Health did not allow standing order morphine, but the Albany area REMAC region (REMO) sought and obtained permission to pilot this protocol. They recently presented their data at SEMAC, and showed a great increase in appropriate pain treatment along with absolutely no adverse events.

*Why is pain treatment important?* Unfortunately, we can all think of cases where a friend or loved one went to a doctor in significant pain and experienced either a delay in pain treatment, inadequate treatment, or none at all. The reasons for this are multifactorial, and there isn't space here to discuss them all. But the epidemic of inadequate pain treatment in medicine has received a lot of attention lately, and there is finally a lot of pressure on the medical community to do a better job treating pain. But, even if the patients you deliver to the ED does eventually get pain treatment, it often takes a long time. A study we recently conducted in Rochester and published as an abstract in the journal *Prehospital Emergency Care* showed that patients with severe pain experience a long delay before they get their first dose of pain medication; an average of 68 minutes if they arrive by EMS and 87 minutes if they arrive on their own. So even if you are 5 minutes out from the hospital, give the morphine! You'll save the patient over an hour of pain. By the way, this study also showed that only 3.3% of patients arriving by EMS in severe pain had received morphine. This study helped give REMAC some impetus for change.

*How should this change your practice?* It is now considered a standard of care in our region to treat patients in severe pain with morphine if they meet the protocol. This

means that if you are on a BLS unit, you should consider calling for ALS if your patient is in severe pain. If you are an ALS unit, you should consider severe pain to be an ALS call. One recent example that occurred in our region illustrates this well. A young, healthy patient was working out when he dislocated his shoulder. He was in severe pain, and EMS was called. The rig that arrived was equipped with morphine and staffed by a basic EMT and a paramedic team. The paramedic helped the patient into the rig, and said "Geesh dude that looks like it really hurts," then climbed into the driver's seat and drove the 15 minute transport time to the hospital. The EMT appropriately applied ice and immobilized the extremity, but denying ALS for this patient was a violation of standard of care. The patient was in severe pain and deserved IM or IV morphine. Take another example: It is inappropriate and unethical to arrive on a scene to find a patient lying on the floor curled up with severe back pain, and to move them to the stretcher, then down the road, then to the ED, all with no pain treatment-- and morphine is sitting in the drug box all the while. Although back pain does not meet standing order criteria, the ALS provider on scene should call for orders. We have sent a memo to all medical control physicians encouraging them to approve orders when patients are otherwise stable and there are no contraindications.

*Why should this change your practice?* First, it is the right thing to do. Pain is a terrible thing. It is how we would want to be treated, and how we would want our loved ones treated. Second, it is wonderful for customer service. Patients will always remember the caring EMS team who treated their pain. Third, this has become a quality standard in the medical field. Joint Commission has now adapted it as a standard, as have several other regulatory and standard setting agencies.

*Isn't 5mg a lot for a starting dose?* NO! Considering the recommended dose of 0.1mg/kg (which is the pediatric dose in the protocol), 5mg of morphine is less than the recommended adequate dose for an aver-

age sized adult, so it is a conservative amount. This dose rarely causes hypotension, and essentially never causes clinically significant respiratory depression in patients who are otherwise doing well. However, in cases where there is a reason to proceed with caution (such as an elderly patient or a very small patient who might weigh less than 70kg), you may give your first 5mg in divided doses if you so choose.

*What about chest pain?* You'll notice that morphine is now absolute on-line for the cardiac chest pain protocol. This reflects a change in practice among cardiologists, who refer to recent literature suggesting that the use of morphine in heart attacks actually worsens outcomes. It is unclear why this is, but some suggest that it is because the best indicator of active ischemia (caused by not enough blood flow to the heart, the essence of a heart attack) is chest pressure itself. So, as opposed to nitro which opens up blood flow and thus reduces ischemia, morphine just masks the pain while the ischemia continues on. As a result, morphine may cause a false reassurance among health care providers, and may then indirectly cause a delay in definitive care such as a cardiac cath. But, since this evidence is based on a secondary analysis of research data that was collected for another purpose, we'll look forward to more definitive studies. In the meantime, this research has changed the practice of cardiologists in our area, and we have changed the protocols to conform.

*Bottom line:* Patients in severe pain deserve prehospital pain treatment when it is not contraindicated. These cases should be considered ALS calls, and in order to expedite the care of these patients, ALS providers now enjoy standing orders for the first dose of morphine in certain conditions.

## New Protocols in effect April 1, 2007

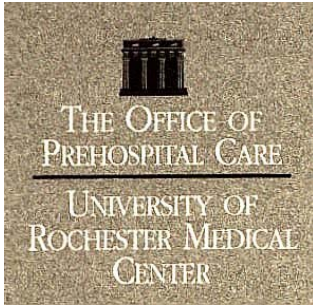
Sheri Stollo, BSN EMT-P

The new regional protocols went into effect April 1, 2007. OPC is hosting a number of protocol updates throughout the Monroe-Livingston Region. ALL ILS/ALS providers are required to attend an update before

May 31, 2007. If an advanced provider does not attend an update, privileges to provide care in the regional system will be suspended until the update has been completed. BLS providers are encouraged to

attend an update, but are not required to attend.

See the MLREMS website for the current list of dates, times and locations of the updates. If your agency would like to schedule an update, please contact



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**If your agency needs PCR's contact  
OPC @ 273-3961**

Reminder—if your agency has switched to an ePCR system, the PCRnet PCR's should no longer be used. Cheat sheets will be available for agencies to use instead.

**Specific Hospital Issues—Contact Information**

OPC receives numerous phone calls for specific hospital issues. We encourage agencies to contact the hospital directly. Below is the contact information, which is also listed on the MLREMS website.

**Highland—Dr. Hilmi or Dr. Cunningham**  
John\_Hilmi@urmc.rochester.edu  
Michael\_Cunningham@urmc.rochester.edu

**Lakeside Hospital—Dr. Kasaraneni**  
395-6095 ext 4205 OR  
Manmadharao.kasaraneni@lakesidehealth.com

**Unity Hospital— Dr. Biernbaum**  
723-7035 OR  
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**Rochester General-Dr. Elsen**  
922-3846 OR  
Stephanie.elsen@viahealth.org

**Strong Hospital-Lisa Brophy**  
273-1948 OR  
Lisa\_Brophy@urmc.rochester.edu

**Upcoming Events**

The MLREMS website is updated weekly as new opportunities for training are set up. Visit [www.MLREMS.org](http://www.MLREMS.org) for more information.

**Protocol Updates:**

April 16	Monroe Amb	9am-11am
April 18	Honeoye Falls Mendon	7:30pm-9:30pm
April 24	Monroe Amb	8pm-10pm
April 25	Monroe Amb	2pm-4pm
April 25	Henrietta Amb	7pm-9pm
April 28	Monroe Amb	7am-9am
April 28	Penfield Amb	9am-11am
May 3	Monroe Amb	8pm-10pm
May 10	Rural Metro	4pm-5:30pm
May 16	Brighton Amb	7pm-9pm
May 17	Rural Metro	4pm-5:30pm
May 17	Rural Metro	6:30pm-8pm
May 18	Rural Metro	8am-9:30am
May 18	Rural Metro	10am-11:30am

**Burn Lectures**

May 2	Greece Ambulance	7pm-9pm
June 20	Livonia Ambulance	7pm-9pm

April 30	OPC Closes for move
May 7	OPC Re-opens in new location

REMAC meetings—3rd Monday at 5:30pm  
MLREMS meetings—4th Tuesday at 4:30pm