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President’s Corner
Nathan MacDonald, MD, FACEP

For an organization like MACEP small victories and incremental progress measure our success towards bigger goals. We continually build upon the work of many of our members over time. Often it takes months, years, or decades to realize the fruits of that labor but sometimes those results can be transformational for our specialty. A perfect example is the elimination of ambulance diversion in the state of Massachusetts. Enacted in 2009 this policy made Massachusetts the only state to do away with the practice of diverting patients in an ambulance to another (theoretically!) less busy ED and our emergency care system in Massachusetts was changed in just one day for the better. Better for providers, better for pre-hospital personnel, and better for hospitals, and most importantly better for patients. This may have seemed like a bolt from the blue to the casual observer but was instead the culmination of many hours of work and collaboration over years by emergency physicians and others who saw that this change was necessary.

Today we find ourselves in the midst of work on other issues that we are confident will someday lead to similar transformative change. Of paramount importance to MACEP is our patients in Massachusetts who must board in emergency departments. This applies to both medical inpatients slated for beds in our hospital inpatient units as well as behavioral health patients who are holding waiting for psychiatric care often at other institutions. Both practices have the same detrimental effect – boarding patients often don’t receive the full inpatient level of care they need and new emergency patients may wait longer or have less than the full resources of the emergency department available. In contrast however these two related problems of boarding medical patients and boarding psychiatric patients may have very different causes and thus require targeted solutions.

MACEP Legislative Update
Ronna Wallace, Legislative Consultant

HOUSE BUDGET INCREASES RESOURCES FOR BEHAVIORAL HEALTH AND ADDICTION SERVICES

MACEP and the House of Representatives agree: Appropriate treatment for mental health and substance abuse patients is a priority! In the face of a surge of heroin and opioid associated overdoses and deaths, the House budget proposes to significantly increase funding for services under the Department of Mental Health and the Department of Public Health.

The House budget for the 2015 state fiscal year, beginning on July 1st would appropriate $815K for the expansion of the Nasal Narcan First Responder and Bystander pilot program. This recommendation is consistent with a recent Executive Order issued by Governor Deval Patrick to make Narcan available immediately to all first responders, as well as more accessible to families and friends of drug abusers. Many first responders have been barred from administering the drug by state regulations written before the opiate crisis. MACEP will weigh in on this proposal at a DPH public hearing on April 25th. Other new and expanded DPH budget initiatives include:

- $3.7M in resources to support the extensive IT system needs for implementation of the Prescription Monitoring Program, and to include NPs and PAs in the program
- $5.5M investment to maintain services previously provided through the Substance Abuse Trust Fund and expand Section 35 beds
- $500K for voluntary training and accreditation programs for Sober Homes

SAVE THE DATE!
Resident Night & Job Fair
Thursday, September 4, 2014
5:30 - 8:30 PM
Boston, MA

www.macep.org
Medical patients waiting for a bed upstairs are the result of flow issues within a single institution. The Massachusetts Department of Public Health has focused on this issue and promulgated the statewide “Code Help” policy which mandates individual hospitals to address these issues whenever medical patient boarding threatens the ability of the emergency department to evaluate and treat new incoming patients. Hospitals can open additional units or beds, facilitate early discharges, place med/surg patients in hallways upstairs, reschedule elective surgeries, or employ a host of other strategies to alleviate boarding. The highest performing institutions use these strategies with great success and as emergency physicians we can work hand in hand with our medical staff colleagues and hospital administrations to ensure that medical patients boarding in the emergency department is a hospital wide concern. If you or someone in your department is not already on the “Flow Committee” at your hospital then get on it!

Behavioral health patients who are stuck in our EDs are arguably a more complex problem. Many of our community hospitals no longer have inpatient psychiatric units and rely on transferring patients to dedicated psychiatric institutions. This process is fraught with undue complexity and barriers to expedient care which results in patients being held in emergency departments sometimes for days or longer. MACEP has been fighting for parity for our behavioral health patients for years (if not decades!) and has been at the table for numerous statewide task forces to address this problem. We received a grant from national ACEP to conduct a study on the problem of behavioral health patient boarding and our data has helped to dispel the notion that this is either not a problem at all or only a sporadic one. Instead we have demonstrated that this is a widespread, pervasive, and significant problem with almost 3000 patients per month “boarding” in Massachusetts EDs every month for times ranging from hours to more than 2 weeks. In the last year we have helped move this issue to the forefront in our state legislature and among our state agencies. While a definitive solution is still elusive, MACEP is continuing to press this issue with the possibility of real progress in the next 1-2 years.

Slow gains in the problem of ED boarding are mounting up. MACEP advocates for the total elimination of this practice in Massachusetts for the benefit of the patients we serve. Once achieved, this will seem to some as if the rules of the game changed in a day. But you, the emergency physician and MACEP member, will know that it will be the culmination of years of effort. Of course MACEP continues to work on other fronts as well ranging from EMS and public health to legislative and reimbursement issues important to both emergency physicians and our patients. All of these issues that are so important will require the participation of many MACEP members to move the ball forward. During the past year as president of MACEP I have been struck by the dedication of emergency physicians to improving emergency care in Massachusetts and extremely proud to be part of an organization that truly puts patients at the forefront of the agenda. I hope you will all join in to the effort in the weeks, months, and years to come. Together we can make those incremental efforts add up to big change.

Fall 2014 Programs - Save the Date!

This one-day course, tailored for Emergency Medicine physicians is based on a synthesis of the SAEM Ultrasound Core Curriculum, the ACEP Emergency Ultrasound Guidelines, and discussions from multiple EM Ultrasound Fellowship Directors. The course will provide didactics and hands-on training for the novice sonographer as well as enhancing and reinforcing techniques for more experienced participants. This course will cover all the core applications of emergency ultrasounds, including discussion of new and exciting advanced applications and will meet ACEP Level 1 provider requirements. This course will include: Knobology & Instrumentation; Biliary and Renal Sonography; DVT; Pelvic Ultrasound; Trauma Sonography (E-FAST); Echocardiography; Vascular Ultrasound; Abdominal Ultrasound; Procedural and Soft Tissue Ultrasound; Hands-on Workshop and Pictorial Review. Upon completion of this course, participants will be able to describe the indications for and limitations of using emergency ultrasound; demonstrate knowledge and ability to perform emergency ultrasound and improve their technical ultrasound skills. EARLY REGISTRATION DEADLINE: Register by October 13, 2014 and save $75 off the registration fee! MACEP Members $375; Non Members $420. After 10/13/14: MACEP Members $450; Non Members $495. Fee includes continental breakfast, lunch and refreshments.

Don’t miss this one-day program for physicians and professional coders. This course will offer practical information and updates on reimbursement and coding. The lectures are intended to build on existing knowledge while at the same time offering practical guidance in the handling of coding, reimbursement and compliance. Registration Fee*: MACEP Members $210; Non Member Physicians $245; Coding Staff and Non Physicians $145; No cost to EM Residents, limited spaces available. Fee includes continental breakfast, lunch and refreshments.

To register for Fall programs contact the MACEP office by email (tpearson@macep.org) or call 781-890-4407.
$2M for the Secure Treatment Facilities for Opiate Addiction, which offers two jail diversion programs for nonviolent offenders with an opiate addiction

$3.5M for the Sexual Assault Nurse Examiner Program (SANE) and Pediatric SANE Programs, which delivers medical care and forensic evidence collection for victims of sexual assault

Increased funding for the Department of Mental Health will be directed towards inpatient and community based services, including:

$36.4M for Acute Inpatient and Emergency Programs

$361.4M for Adult Community Mental Health Services

$87.4M for Child and Adolescent Mental Health Services, including $3.1M for the Massachusetts Child Psychiatry Access Project

$181.4M for State Psychiatric Hospitals and Community Mental Health Centers, maintaining funding for the operation of 45 beds at Taunton State Hospital

The following outside sections of the budget are also intended to improve access to behavioral health and addiction treatment:

- Section 12 directs DPH to establish and advertise a toll-free telephone helpline that provides comprehensive, accurate and current information and referrals related to addiction treatment, prevention services and alcohol and drug free housing.

- Section 45 requires DPH and the Center for Health Information Analysis (CHIA) to collect data and produce annual reports on the use of EDs by patients seeking mental health or substance abuse services, including but not limited to compliance with state and federal mental health parity laws.

- Section 78 directs DPH to limit the distribution of hydrocodone-only opioid controlled substances which have no abuse-deterrent properties by restricting the marketing and prescribing of such substances. This provision is directed at the prescribing of Zohydro, which was approved last year in a controversial decision by the FDA despite its not being available in tamper-proof form. Legal action taken by the pharmaceutical company that produces Zohydro may halt this provision of the Governor’s Executive Order.

- Section 101 establishes a special task force to identify and make recommendations on eliminating existing structural or policy-based impediments to delivering comprehensive and cost-effective behavioral and mental health treatment within the commonwealth’s health care system. MACEP has filed an amendment to include a representative of the College on the Taskforce.

Lastly, MACEP is working with the Mass Hospital Association, Mass Medical Society, the Mass Association of Behavioral Health Systems, and the Massachusetts Psychiatric Society on a budget amendment to fine tune the House’s provisions to free up a clogged pipeline that restricts patients from accessing timely services and causes back-ups in emergency departments.

House floor debate on the budget is scheduled for the week of April 28th. The Senate is expected to take up the budget in mid-May. A conference committee will be appointed to resolve differences between the House and Senate budgets. The budget must be in place before the start of the 2015 fiscal year, on July 1st.

“DISASTER” BILL GOES TO STUDY

Despite a “C” grade for Disaster Preparedness and “D” for Liability Environment by ACEP in this years “Report Card,” S.1012, “An Act Relative to Emergency and Disaster Planning for Health Care Providers” (Eldridge, D-Acton) was put into a study by the Public Health Committee, effectively killing the bill for this legislative session. Put forth by MACEP, the bill would grant qualified civil immunity to physicians, nurses, and other healthcare professionals who provide emergency medical services, and require that in emergency situations, there would be a general waiver of liability of court or regulatory agency administrative sanctions against health care providers to ensure that providers are able to care for patients quickly without worry about liability concerns. H.1485 (Malia, D-Jamaica Plain), the House companion bill, is currently pending before the Judiciary Committee, but action on that bill is unlikely. Noting the reluctance of the state legislature to support this concept as currently presented, MACEP will revise the legislation before refiling for next legislative session.

First Annual New England EM Resident Job Fair


Join your fellow residents for a FREE DINNER, and a chance to network with New England ED Directors on Thursday, September 4, 2014 from 5:30 - 8:30 PM at Ned Devines Restaurant in the Parris Lounge, Faneuil Hall, Boston, MA.

For more information, please contact the MACEP office at pearson@macep.org or 781-890-4407.
Dousing the Flames Program

On April 7, 2014 MACEP held its first emergency physician wellness and burnout prevention program. The program was planned to help members prevent and combat emergency medicine burnout with a chapter grant from ACEP. Sixty MACEP members attended the one-day educational forum and heard from national and local experts including:

STEVE ADELMAN, MD
Director, Physician Health Services, Massachusetts Medical Society
Clinical Associate Professor of Psychiatry at the University of Massachusetts Medical School

JAY BARUCH, MD, FACEP
Associate Professor of Emergency Medicine at Alpert Medical School at Brown University; Director, Program in Clinical Arts and Humanities; Co-Director Medical Humanities and Bioethics Scholarly Concentration; Director, Ethics Curriculum

KATE BURKE, MD, FACEP
Department of Emergency Medicine, Milford Regional Hospital
Clinical Associate Professor of Emergency Medicine, University of Massachusetts Medical School

DIANA DILL, ED.D
Consultant and Educator, Working Together For Health

JAY KAPLAN, MD, FACEP
Director of Service and Operational Excellence, CEP America Physician Partners; Medical Director, Studer Group, and ACEP Board Member

ANITA KARCZ, MD, MBA
Chief Medical Officer, Institute for Health Metrics

CHRISTINE HERNON, MD
Assistant Professor of Emergency Medicine, University of Massachusetts Medical School

LORI WEICHENTHAL, MD, FACEP
Associate Professor of Clinical Emergency Medicine & Associate Residency Director, University of California San Francisco Fresno; Past Chair, ACEP Wellness Section

The speaker sessions were recorded and will be available shortly through ACEP’s online learning portal.

The conference planning committee thanks all the speakers and members who attended. MACEP hopes to continue this program in future years.
Case Management: Acute Ischemia
Boston Medical Center, Department of Emergency Medicine
Leslie Halpern, MD, Resident Author
Jasmine C. Mathews, MD, Resident Editor
Kalpana Narayan Shankar, MD, MSc, MSHP Faculty Reviewer

CC: Changes in sensation, weakness of right lower extremity.

HPI: This is a 65 year-old woman with an extensive past medical history including significant vascular and renal disease presenting with acute onset change in sensation of her right lower extremity. The patient reports she woke up to use the bathroom early in the morning and noticed she could not feel her right lower extremity distal to her knee. She also reported right lower extremity weakness associated with inability to move her lower leg. She “dragged” herself to the bathroom, and when she returned, also noticed pain in her right thigh. The pain and changes in sensation improved once she arrived in the Emergency Department (ED) but were still present at the time of initial evaluation (approximately 4 hours after she first noticed symptoms).

PMH: Hypertension (HTN), paroxysmal atrial fibrillation, Pulmonary Embolism (PE) diagnosed 2/2011, CRI (secondary to Focal Segmental Glomerular Sclerosis; baseline Cr 1.9 - 2.2), Diverticulosis, Anemia, Asthma, DM, gastroesophageal reflux disease.


Social: Denies tobacco, drugs. Social alcohol use. Lives at home with family members in adjoining apartment.


Allergies: NKDA.

PHYSICAL EXAM

Vitals: T 98.1 HR 56 BP 121/70 RR 20 O2 sat 97% on room air.
Gen: Alert and oriented.
HEENT: NC/AT. Eyes normal to inspection. Mucous membranes moist.
Respiratory: CTAB, no respiratory distress.
CV: RRR, normal S1/S2, +I/VI systolic murmur heard best over apex, no rubs/gallops appreciated.
Abdomen: Soft, non-tender, non-distended.
Back: Normal inspection, no midline or paraspinal tenderness, no CVA tenderness.
Upper Extremity: Inspection normal, no cyanosis/clubbing/edema. Normal range of motion. 2+ radial pulses.
Lower Extremity: Inspection normal, no cyanosis/clubbing/edema. No calf tenderness. RLE slightly cooler to touch than LLE. Femoral pulses present bilaterally. RLE: Unable to palpate popliteal pulses bilaterally secondary to habitus. No palpable DP or PT pulse, no DP Doppler signal. LLE:

warm, 2+ palpable DP and PT pulses. Strength 5/5 BUE, 4/5 BLE.

Neuro: GCS 15, CN II-XII intact, speech normal. Decreased sensation to light touch circumferentially in RLE distal to knee.
Skin: Warm, dry, intact. Cool RLE.

ED COURSE

CBC, electrolytes and INR/PTT were drawn, and an EKG and portable CXR were obtained. Given the patient’s initial complaint of acute onset of sensory changes in her right lower extremity, she underwent non-contrast CT brain to rule out a primary CVA. Vascular Surgery was consulted for an exam concerning for limb ischemia.

STUDIES

Labs were significant for Hgb/Hct 9.9/30.7, platelets 115, and BUN/Creatinine 80/4.5. PT/PTT/INR were within normal limits. CT brain was unremarkable for an acute intracranial process. EKG showed sinus arrhythmia, with diffuse T-wave inversions similar to a prior EKG, although it was noted that the prior EKG was in atrial fibrillation. Chest x-ray was unremarkable. Further imaging options for her lower extremity was discussed with radiology and vascular surgery to investigate the possibility of acute limb ischemia secondary to thrombus. With the patient’s elevated creatinine and history of CRI, the patient underwent a bedside ultrasound of her leg which suggested thrombus in the right common femoral artery. Based on this finding and her exam, an emergent surgical intervention was planned by the vascular service. An unfractionated heparin bolus and drip was initiated and the patient was taken directly to the operating room with Vascular Surgery.

OPERATIVE COURSE

The patient underwent a right femoral artery exploration with embolectomy and prophylactic right calf four compartment fasciotomy secondary to presumed prolonged ischemia.

HOSPITAL COURSE

Post-operatively, the patient was admitted to the Surgical Intensive Care Unit for close monitoring. Her right lower extremity remained warm and well perfused. She was started on a bumetanide drip and underwent hemodialysis for initial anuria which resolved by post-operative day 2. She received a total of 3 units of packed red blood cells, iron dextran, and was started on weekly Epogen for anemia, likely related to her chronic renal insufficiency. The heparin infusion was continued until she reached therapeutic INR on warfarin.

To determine the source of her thrombus, a transthoracic echocardiogram was obtained during her inpatient stay. This study demonstrated a hyperdynamic heart function (estimated ejection fraction 80%), severely dilated left atrium and tricuspid regurgitation. A bubble study was negative for septal defects and no intracardiac thrombi were noted.
FOLLOW UP
At follow up outpatient visits, the patient's exam was notable for bilateral lower extremities that were warm and well-perfused with palpable DP/PT pulses and with no pain or paresthesias. Doppler studies of her lower extremities performed approximately 3 months after her presentation were normal.

QUESTIONS
Acute limb ischemia (ALI) is a critical Emergency Medicine diagnosis that can have variable presenting signs and symptoms. It affects approximately 1.5 per 10,000 people per year and is associated with significant morbidity and mortality.\(^1\) Amputation occurs in 10-15% of patients after hospital admission, and 15-20% of patients die within one year of presentation.\(^2,3\) Typically, the inciting event is occlusion of the affected artery or existing graft or embolization from a proximal source such as the heart or atherosclerotic artery. Common chief complaints include sudden-onset extremity pain, but patients may also present with isolated neurologic changes such as extremity weakness or paresthesias. The most common sites of embolism are the common femoral and popliteal, but there are a number of locations in which acute limb ischemia can occur (See Figure 1).

What are the risk factors for developing ALI?
The etiology of the ischemia may be embolic or thrombotic, so a thorough history should assess for risk factors of both disease processes. Risk factors for developing emboli include atrial fibrillation and poor cardiac wall motion. These conditions predispose patients to stagnant blood and clot formation, which may then embolize peripherally.\(^5\) Peripheral thrombosis is likely to occur at the site of existing atherosclerotic disease, especially sites with large vessel aneurysms, prior revascularization procedures, or a known stenotic/atherosclerotic artery. Less commonly, acute limb ischemia may occur in the setting of arterial trauma (i.e. following an interventional procedure, dissecting aneurysm or acute limb trauma resulting in a fracture or compartment syndrome). The incidence of acute arterial occlusion following coronary interventional procedure is low (<0.8%) and may occur at the site of catheterization or more distally, due to emboli from the catheter site.\(^6\) Patients with a high risk for atherosclerosis or peripheral arterial disease, which predisposes to thrombosis, include those with diabetes, age greater than 40, or tobacco smokers.\(^7\)

What are the presenting signs and symptoms of ALI?
According to the Trans-Atlantic Inter-Society Consensus (TASC II), acute limb ischemia is defined as a sudden decrease in limb perfusion that causes a potential threat to limb viability.\(^8\) The symptoms of limb ischemia are often referred to as the “Six P’s”- pain, paresthesias, pallor (delayed capillary refill), pulselessness, poikilothermia (coolness to touch), and paralysis. Acute limb ischemia typically presents as the sudden onset of unilateral extremity pain with any combination of these symptoms. Subjective sensory changes and paresthesias are often signs of early nerve impairment, while major sensory loss and weakness are indicative of more advanced ischemia. Many patients with limb ischemia do not present with all of the above symptoms and may present with only one symptom.

Symptoms present for more than two weeks are considered chronic limb ischemia and are more likely associated with a history of claudication, poor pulses and dusky limbs bilaterally.\(^8\) The onset of symptoms may be more insidious due to the development of collateral vessels, in contrast to patients with an acute thromboembolism.\(^9,10\) For example, a patient with chronic peripheral vascular disease may develop ischemia from an arterial thrombus, but existing collateral vessels allow continued (although limited) perfusion to the extremity. In contrast, a patient with an arterial embolus from atrial fibrillation lacks adequate collaterals and is likely to present with the more classic findings of acute limb ischemia as detailed above.

It must be noted that there is significant overlap between the signs and symptoms of chronic and acute ischemia. While determination of this is important for long-term prognostication, the underlying pathophysiology may not always be elucidated in the emergency department.

How is ALI diagnosed?
If a distal pulse or Doppler signal is present but decreased (as in a patient with chronic limb ischemia/peripheral arterial disease), the clinician may perform ankle-brachial indices to assess the severity of peripheral arterial disease. The ankle-brachial index is the ratio of the systolic blood pressure of the DP or PT over the systolic pressure of the ipsilateral arm. A ratio of 0.91-1.3 is normal, 0.41-0.90 indicates mild-moderate peripheral arterial disease while a ratio <0.41 indicates severe peripheral disease.\(^7\)

If the diagnosis is in doubt, additional imaging by duplex ultrasound, CT angiography or MRA may be performed. All modalities have been established as reliable forms of diagnosis, although there are factors that limit the sensitivity or applicability to

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**Figure 1: Most Common Sites for Embolic events Causing Acute Limb Ischemia With Associated Percentages**

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Intervention
Complete
16
1,9,15
Complete
Heparin bolus and
14
Complete
13
Heparin bolus and
Normal
None
Partial
None
Delayed
Complete
None
Heparin bolus and
Partial

Table 1: Categorization, Evaluation and Treatment of Limb Ischemia

<table>
<thead>
<tr>
<th>Sensory Deficit</th>
<th>Motor Deficit</th>
<th>Pulse Deficit</th>
<th>Capillary Refill</th>
<th>Anticoagulation</th>
<th>Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viable</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>Normal</td>
<td>Heparin bolus and infusion</td>
</tr>
<tr>
<td>Threatened</td>
<td>Partial</td>
<td>Partial</td>
<td>Complete</td>
<td>Delayed</td>
<td>Heparin bolus and infusion</td>
</tr>
<tr>
<td>Non Viable</td>
<td>Complete</td>
<td>Complete</td>
<td>Complete</td>
<td>Absent</td>
<td>Heparin bolus and infusion</td>
</tr>
</tbody>
</table>

A 2001 meta-analysis by Koelmay et al\textsuperscript{13} found that MRA is highly accurate for the detection of significant (>50%) stenosis or complete arterial occlusion. In the femoropopliteal vessels, the sensitivity of MRA ranged from 88-100% with specificity ranging between 82-100%. A more recent meta-analysis by Collins et al\textsuperscript{14} noted a contrast-enhanced MRA demonstrated a sensitivity and specificity of >90%. The same review noted the sensitivity and specificity of a CTA ranged from 89-99% and 83-97%, respectively.

What are the criteria for assessing limb viability?
Limb viability is commonly divided into three categories – viable, threatened, and non-viable.\textsuperscript{16} The distinctions are made based on patient symptoms but rely more on physician assessment.

Viable: A viable or minimally threatened extremity is characterized by mild pain with preserved motor, sensory, and pulse exam. Patients with a viable extremity may be candidates for intra-arterial thrombolytics in addition to surgical or percutaneous clot removal. Since the deficits in a viable extremity are mild, time is afforded for imaging studies including venous doppler, CT angiography, or MR angiography to assess and map the patency of the vascular system.

Threatened: A threatened extremity has signs of severe acute ischemia, including severe pain but also significant motor, sensory, and pulse deficits on exam. Emergency surgical thromboembolectomy and possible bypass grafting without the aid of diagnostic imaging is warranted to salvage the threatened limb. Threatened ischemia can go on to produce irrevocable damage in as little as 4-6 hours. Thrombolytics are not indicated in these patients as their effective time to onset is too long to provide a clinical benefit. Our patient was categorized as a “threatened extremity,” and subsequently received surgical intervention without the delay of diagnostic imaging.

Non-viable: Finally, a nonviable extremity is deemed to be outside the window for limb salvage, and requires urgent but not emergent amputation. Patients should be admitted for close monitoring prior to definitive treatment.

Every effort should be made to prevent any delays to definitive treatment for patients with acute ischemic limb. All patients, including those deemed viable and safe for imaging, should be re-evaluated for progression of ischemia and signs of developing a threatened limb. Despite treatment efforts, 15-20% of all patients with ALI will die within one year of presentation, typically from their predisposing medical illnesses.\textsuperscript{3}

**SUMMARY**
Acute limb ischemia is a critical and time-sensitive ED diagnosis. Any delay in diagnosis and treatment risks permanent limb damage and significant patient disability. A thorough extremity vascular and neurologic examination, including assessment of peripheral pulses by palpation or Doppler, in conjunction with a careful history, is integral to diagnosis. CT and MR angiography and, in certain circumstances, bedside ultrasound can help confirm clinical suspicion. Prompt initiation of anticoagulation and involvement of Vascular Surgery consultants for consideration of definitive treatment options, including thromboembolectomy, thrombolytics, angioplasty, or bypass
CASE MANAGEMENT continued from page seven

grafting, are the mainstays of therapy. A high index of suspicion and an awareness of a patient’s risk factors for vascular disease may help the ED physician make a prompt diagnosis and potentially save an ischemic limb.

ACKNOWLEDGEMENT

The authors would like to acknowledge Ryan Sullivan, MD for his contributions to this article.

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9. Mitchell ME, Mohler ER, Carpenter JP. Overview of acute arterial occlusion of the extremities (acute limb ischemia) In: UpToDate, Collins KA (ed), UpToDate, Waltham, MA. (Accessed on February 1, 2014.)

MMS Honors Two of MACEP’s Members

Dr. Alan Woodward honored with the Henry Ingersoll Bowditch Award for Excellence in Public Health. Named after a leading figure in medicine and public health in the 19th century, the award is presented to a Massachusetts physician who demonstrates creativity, commendable citizenship, initiative, innovation and leadership in the public health and advocacy fields. He will receive the award, one of the Massachusetts Medical Society’s most prestigious, at the organization’s annual meeting in Boston on May 16, 2014.

Dr. James Feldman honored with the Grant V. Rodkey Award, an honor recognizing a Massachusetts physician for outstanding contributions to medical education and medical students. He will receive the award, one of the Massachusetts Medical Society’s most prestigious, at the organization’s annual meeting in Boston on May 16, 2014.