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From the Editor

New Mandatory REMAC Credentialing Fee

A new $25 fee has been instituted by NYC REMAC for all new or recertifying paramedic credentials. On successfully completing a REMAC exam, candidates will receive a temporary letter verifying certification. They will soon after be mailed a memo directly from NYC REMSCO requiring a completed application, proof of NY State paramedic certification, and credentialing fee by money order only. On receipt, a permanent NYC REMAC certification card will be issued.

Please direct inquiries on this process to NYC REMSCO at 212-870-2301

Important Change to Protocol Updates

A new protocol update schedule has been adopted for both the field and the certification process. Rollouts now take place only once per year. The final version will be published January 1, beginning a three month training period. The new protocols are then implemented for all agencies on April 1.

During January, February and March, only the prior version is in effect, not the new April protocol changes. Only on April 1 will the new version be available for use in the field and on certification exams.

Exceptions make take place when it is urgent that a specific life-saving treatment be available right away. In such a case, the change would be implemented on a selected date for both the field and REMAC exams.

Always see nycremsco.org for the current approved protocols.

REMEMBER: the protocols on the street are the protocols on the exam!
Effective April 1, 2010, NYC REMAC protocol revisions are to be implemented by paramedics updated by their Medical Director.

Per REMAC, ambulance services in NYC are responsible to provide copies of the protocols to their personnel. REMAC Advisories and Protocols are available to all at www.nycremsco.org

After April 1, only the April 2010 protocols may be used in the field and on NYC REMAC exams.

Questions may be referred to the REMAC Liaison at swansoc@fdny.nyc.gov or 718-999-2671.

Outline of April 2010 NYC REMAC protocol changes

see REMAC Advisory 2010-01 at nycremsco.org:

General Operating Procedures

- **Oxygen Admin**: removes respiratory rate as criterion for ventilation; removes mouth-to-mouth & mouth-to-nose ventilation
- **Prehospital sedation**: adds etomidate for cardioversion and pacing
- **Communication with Medical Control**: removes 20 minute on-scene time limit

BLS Protocols

- **401 Resp Distress**: removes respiratory rate as criterion for ventilation; removes mouth-to-mouth & mouth-to-nose ventilation
- **407 Wheezing**: adds epinephrine under Standing Orders with repeat Medical Control Option
- **410 Anaphylaxis**: changes initial epinephrine dose to Standing Orders
- **421 Head & Spine Injuries**: clarifies criteria for immobilization
- **423 Chest Injuries**: removes bulky dressings for flail segments
- **425 Bone & Joint Injuries**: note to request ALS for pain management; clarifies traction splint for closed injuries
- **428 Burns**: note to request ALS for pain management; clarifies bandaging by BSA
- **430 EDP**: note to request ALS for sedation
- **431 Heat-related Emergencies**: removes saline PO

ALS Protocols

- **500-A Smoke Inhalation & 500-B Cyanide Exposure**: clarifies sodium thiosulphate preparation
- **502 Obstructed Airway**: removes needle cricothyroidotomy; adds procedure for right-mainstem bronchus displacement
- **503 Non-traumatic Arrest**: removes reference to paddles
- **503-A V-fib/V-tach**: changes joule setting
- **503-B PEA/Asystole**: adds dextrose administration
- **504 Suspected MI**: adds prompt OLMC contact; changes transport prior to IV admin
- **505-A, B & C Dysrhythmias**: removes biphasic
- **505-D Brady Dysrhythmias**: removes epi drip
- **506 APE**: changes furosemide to Medical Control Option
- **510 Anaphylaxis**: removes epi drip
- **521 Head Injuries**: clarifies use of hyperventilation
- **540 Severe Pre-Eclampsia/Eclampsia**: renames protocol; removes treatment for post-partum hemorrhage
- **551 Peds Obstructed Airway**: removes needle cricothyroidotomy; adds procedure for right-mainstem bronchus displacement
- **554 Peds Asthma**: clarifies ipratropium use
- **555 Peds Anaphylaxis**: removes epi drip

Appendices

Appendix N Needle Cricothyroidotomy: deleted
REMAC Exam Study Tips

REMAC candidates have difficulty with:

* Epinephrine use for peds patients
* 12-lead EKG interpretation
* ventilation rates for peds & neonates

REMAC Written exams are approximately:

15% Protocol GOP
40% Adult Med. Emerg.
10% BLS
10% Adult Trauma
10% Adult Arrest
15% Pediatrics

Certification & CME Information

- **Of the 36 hours of Physician Directed Call Review CME required for REMAC Refresher recertification, at least 18 hours must be ACR/PCR Review (which may include QA/QI Review). The remaining 18 hours may include ED Teaching Rounds and OLMC Rotation.**
- **Failure to maintain a valid NYS EMT-P card will invalidate your REMAC certification.**
- **By the day of their refresher exam all candidates must present a letter from their Medical Director verifying fulfillment of CME requirements. Failure to do so will prevent recertification.**
- **FDNY paramedics, see your ALS coordinator or Division Medical Director for CME letters.**
- **CME letters must indicate the proper number of hours, per REMAC Advisory # 2000-03:**
  - 36 hours - Physician Directed Call Review
    - ACR Review, QA/I Session (minimum 18 hours of ACR/QA review)
    - Emergency Department Teaching Rounds, OLMC Rotation
  - 36 hours - Alternative Source CME - Maximum of 12 hours per venue
    - Online CME - Clinical rotations
    - Lectures / Symposiums / Conferences - Associated Certifications:
      - BCLS / ACLS / PALS / NALS / PHTLS

REMAC Refresher Written examinations are held monthly, and may be attended up to 6 months before your expiration date. See the exam calendar at the end of this Journal. To register, call the Registration Hotline @ 718-999-7074 by the last day of the month prior to your exam.

REMAC Quarterly Written and Oral examinations are held every January, April, July & October. Registration is limited to the first 50 applicants. See the exam calendar at the end of this journal.

REMAC CME and Protocol information is available, and suggestions or questions about the newsletter are welcome. Call 718-999-2671 or email swansoc@fdny.nyc.gov

REMSCO: www.NYCREMSCO.org

January 2011 – Journal CME Newsletter
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FDNY OLMC Physicians and ID Numbers

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INTRODUCTION

In the time it takes you to read this article, at least 2 people will die from trauma and 390 people will suffer a disabling injury. The top five causes of trauma deaths are motor vehicle collisions (MVCs), falls, poisonings, smoke inhalation/burns, and drowning. Most of these deaths are preventable, and they usually target young, healthy people who might have otherwise lived long, productive lives. The three phases of trauma care are pre-event (the phase during which prevention can have an effect), event (the trauma itself), and post-event (this is where you respond to clean up the mess). There are many injury prevention techniques that we may take for granted that target these top trauma killers – seatbelts, car-seats, airbags, drinking-and-driving laws, child-resistant safety caps, smoke detectors, fences around pools, and personal flotation devices (life preservers). And still young people continue to die prematurely of trauma.

A thorough survey of the scene will help to identify the physical forces that caused the patient’s injuries. When a patient has been assaulted, it is important to ask what they were hit with – fists? a bat? a broken bottle? As an EMT or Paramedic, you can provide vital information to the Emergency Department staff about the mechanism of injury and the patient’s behavior and physical exam on the scene. The only way the Emergency Department physician will know that the car was crushed like a tin can, that the airbags deployed, that the patient was initially unconscious, or that there was another patient DOA at the scene is if you give them that information.

Major trauma patients require a different mindset. More harm than good is done with a “stay and play” approach. As discussed in last month’s CME article, trauma patients with internal hemorrhage often need a surgeon and an operating room in order to survive. The faster you can get them to the nearest trauma center, the faster they will make it to the OR. Again, your primary survey and any lifesaving interventions will be performed on-scene, but your secondary survey should be performed en route to the hospital, headed toward definitive care. This article will address chest and abdominal trauma, specifically. Many vital organs are at risk in blunt or penetrating chest or abdominal trauma, and there are many serious injuries that can occur.

THORACIC TRAUMA

SKELETAL INJURY

Skeletal injury of the chest wall can cause fractures of the clavicle, sternum, or ribs. In fact, the clavicle is the most commonly fractured bone. Clavicular fracture is very common in children and young athletes. An isolated clavicle fracture is usually not serious, but it can be associated with other, more serious, chest trauma. The subclavian artery and vein run right under the clavicle and may be injured, producing significant hemorrhage.
Rib fractures are more common in adults than in children, since younger patients have a more flexible ribcage, with more cartilage. A simple rib fracture is very painful but is rarely life-threatening. The patient should be encouraged to take deep breaths. Hypoventilation (because of the pain) can cause atelectasis (collapse of alveoli) and lead to pneumonia; these are common complications of rib fractures. If the pain from a rib fracture is severe and an ALS unit is available, On-Line Medical Control (OLMC) may be contacted to request a discretionary order for analgesia. However, you should be aware that opioids, which are useful as potent analgesics, can also cause respiratory depression, which can worsen the problem with hypoventilation and atelectasis. A flail chest is a series of rib fractures, with 3 or more adjacent ribs that are fractured in 2 or more places. This produces a section of ribcage that is floating freely and not attached to the rest of the chest wall. When the patient breathes, this section will move in a paradoxical fashion (in the opposite direction as the rest of the chest wall). Flail chest is a sign of a significant mechanism of injury; it has up to a 40% mortality rate because of the associated injuries. It is not the rib fractures themselves that make us worry, but rather the underlying cardiac or pulmonary contusion.

Similarly, a fracture of the sternum is rare but serious, because it indicates a major mechanism of injury. It takes great force to fracture your sternum. A sternal fracture usually results from a direct blow to the chest or a massive crush injury. Even though sternal fractures make up as little as 5% of blunt chest injuries, they can have a mortality rate of 45 percent, due to the underlying cardiac injuries that can occur.

**PULMONARY INJURY**

Many types of lung injury can cause difficulty breathing. A pneumothorax is air in the pleural space (between the visceral and parietal pleura), which causes the lung to partially or totally collapse. It occurs in 10-30% of patients with blunt chest trauma and most patients with penetrating chest trauma. The patient may have chest pain, difficulty breathing, or tachycardia; breath sounds may be decreased or absent on the side with the collapsed lung. The treatment is high-flow oxygen and support with a bag-valve mask as needed. An open pneumothorax occurs when there is a wound on the chest wall (called a “sucking chest wound” because of the sound that it makes) that opens up the pleural space to the outside atmosphere; air rushes in quickly and causes the lung to collapse more rapidly than in a closed pneumothorax. This requires an occlusive dressing taped down on 3 sides.
This works as a one-way valve, allowing air to escape the dressing but not to “suck” back into the pleural space again.

A tension pneumothorax may develop if air gets trapped in the thoracic cavity and cannot get out. This can happen after the application of an occlusive dressing, especially if you tape down all 4 sides. It can be relieved by momentarily lifting up the dressing to let the air escape.

A tension pneumothorax is a true emergency, because the trapped air builds up and pushes against the mediastinum and the “good lung.” The trapped air also pushes against the inferior vena cava and reduces blood flow returning to the heart (preload). This can cause hypotension and shock. A tension pneumothorax can be decompressed by inserting a large-bore needle into the 2nd intercostal space (between the 2nd and 3rd ribs, just above the 3rd rib to avoid nerves and vessels) in the mid-clavicular line.

A hemothorax is the presence of blood in the pleural space. (Sometimes a patient can have a mixed picture, with both air and blood in the pleural space; this is called a hemopneumothorax.) Each side of the chest can hold 30-40% (2000 to 3000 mL) of the patient’s blood volume. A hemothorax carries a higher mortality rate than a simple pneumothorax does. Hemothorax creates a problem with both B and C of the ABC’s; when one side of your chest is full of blood, you cannot oxygenate that lung properly (breathing is compromised) AND you are losing blood into your chest cavity (circulation is compromised). These patients benefit from both ventilatory support with oxygen and IV fluids.

A pulmonary contusion is a bruised lung. It is most often caused by deceleration injuries, where the lungs slam forward against the inside of the chest wall after the body stops moving forward (e.g., when the body impacts a hard surface or is restrained by a seatbelt or airbag). The signs and symptoms of a pulmonary contusion overlap with those of other lung injuries and include evidence of blunt trauma, tachypnea, tachycardia, cough, dyspnea, hemoptysis (coughing up blood), and cyanosis. The treatment of a pulmonary contusion is oxygen, ventilatory support as needed, and rapid transport. You will not always be able to tell the difference between a pneumothorax and a pulmonary contusion in the field. When the patient arrives in the emergency department, a chest X-ray will help distinguish the two. Pulmonary contusions generally heal gradually, over several weeks.

### INJURIES TO THE HEART AND GREAT VESSELS

A myocardial contusion, similarly, is a bruised heart. The mechanism of injury is blunt trauma, similar to a pulmonary contusion. Clues at the scene that should alert you to the possibility of a myocardial contusion are a bent steering column (especially in an old car that does not have airbags or in an accident where there was an unrestrained driver). The patient may have a sternal fracture or rib fractures. The patient may have signs and symptoms very similar to a person who is having a myocardial infarction. They may have chest pain, EKG abnormalities, and persistent tachycardia; they may be in cardiogenic shock.
Sometimes an injury to the heart can create tears in the walls of the heart chambers. This is most common with penetrating injuries; as blood leaks out of the heart, it can accumulate in the pericardium, the sac surrounding the heart. It can become difficult to hear the heart sounds, since the heart is now beating inside a bag full of fluid. This starts to put pressure on the heart from the outside. Soon, the heart is not able to expand and fill up properly with each beat, which reduces its ability to pump blood (this leads to hypotension). When there is just a little bit of blood in the sac surrounding the heart, it is called a pericardial effusion. When it gets to the point that it is putting so much pressure on the heart from the outside that the chambers of the heart start to collapse, it is called pericardial tamponade.

On EKG, these patients are typically tachycardic (which is a compensatory mechanism for the hypotension) and may have a low-voltage QRS (the electrical equivalent of the muffled heart sounds, since the electrical activity has a harder time traveling through the fluid to your electrodes). The EKG may also show electrical alternans, which is an alternating smaller QRS, then larger QRS, then smaller QRS, and so on. This happens when the heart starts swinging back and forth within the blood-filled pericardial sac: when the heart swings closer to your electrodes, it produces a bigger QRS; when it moves farther away, the electrodes record a smaller QRS. The patient may have a “narrow pulse pressure, which just means that the numeric difference between the systolic BP and diastolic BP is decreased. The patient is hypotensive, but the systolic pressure drops more than the diastolic pressure (again, this is caused by a compensatory mechanism; the patient is trying to compensate for the hypotension with peripheral vasoconstriction).

The patient may also have pulsus paradoxus, an abnormal drop in systolic BP of more than 10-15 mmHg during inspiration (as compared with expiration). The treatment of pericardial tamponade is ABC’s and rapid transport.

Beck’s Triad (3 classic signs of pericardial tamponade)

<table>
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<tr>
<td>jugular venous distention (JVD)</td>
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<td>muffled heart sounds</td>
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<td>hypotension</td>
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An EKG showing electrical alternans
The patient needs to have the blood removed from the pericardial sac, either by needle drainage (this happens in the ED) or by an operation to cut a hole, or “window” in the pericardium (this happens in the OR). Either way, rapid transport to definitive care is the key!

A patient who has a significant mechanism of injury may actually rupture either the heart or the great vessels. Traumatic myocardial rupture is usually fatal, but if the pericardial sac does not tear, the patient may present with what looks like acute CHF and cardiac tamponade. Traumatic aortic rupture is usually caused by shearing forces, which develop between tissues that decelerate at different rates. 80-90% of patients die immediately (at the scene) from massive hemorrhage. Sometimes the surrounding tissues compress the bleeding site enough that it tamponades off, and the patient does not bleed out immediately. Another 1/3 of these patients go on to rupture fully within 6 hours. Aortic rupture causes 15% of all deaths from blunt trauma! The aorta usually tears at the distal arch, just after the left subclavian artery branches off and just before the ligamentum arteriosum attaches to the aorta; this happens because the ligamentum arteriosum tethers the lower aorta in place while the upper part of the arch can swing freely (and rip off) when the body decelerates. These patients may have a normal or even high blood pressure, and they may have strong pulses in the upper extremities but weak pulses in the lower extremities. There may be evidence of aortic dissection, a tear in the aorta that causes blood to flow between the layers of the wall of the vessel, forcing them apart. You may hear a new, loud, harsh systolic murmur or a difference in blood pressure between the two arms.

**Other Thoracic Injuries**

Esophageal injuries are usually caused by penetrating trauma (e.g., knife or gun shot wounds). The patient may have pain with movement of the head, and there may be subcutaneous emphysema (air under the skin) of the neck. Injuries of the tracheobronchial tree are rare (3% of chest trauma) but have a high mortality rate (30%). The patient will have severe hypoxia, tachypnea, tachycardia, massive subcutaneous emphysema, dyspnea, hemoptyisis, and respiratory distress. Injuries of the diaphragm (the paper-thin muscle that separates the chest from the abdomen) can occur when a patient has severe abdominal trauma and the abdominal contents (typically intestines) herniate upward, through the diaphragm, into the chest cavity. When this happens, the intestines take up space in the chest, making it difficult to breathe. The patient will have decreased breath sounds; you may even hear bowel sounds in the chest! Rupture of the diaphragm is more likely to occur on the left side of the abdomen, where there is a natural weak spot (where the esophagus penetrates the diaphragm on its way to the stomach).
ABDOMINAL TRAUMA

SOLID ORGAN INJURY

Trauma is the end result of physics acting on human anatomy. Abdominal trauma may be caused by blunt or penetrating trauma. In turn, blunt trauma may involve compression forces (e.g., your spleen being crushed between your spinal column and a baseball bat) or shearing forces (e.g., your liver being sliced in half by its own ligament, which is fixed to the diaphragm, as you decelerate in an MVC). Because the liver is the largest intra-abdominal organ, it is the largest target; therefore, it is the most commonly injured organ in penetrating trauma of the abdomen. In turn, the spleen is the most commonly injured organ in blunt abdominal trauma because of its delicate anatomy. Many patients with splenic injuries are asymptomatic. Most commonly, they complain of LUQ abdominal pain, but they may instead complain of left shoulder pain, which is called Kehr’s sign. Kehr’s sign is left shoulder pain (or LUQ pain radiating to the left shoulder), which is caused by irritation of the left diaphragm secondary to bleeding, swelling, or hematoma of the spleen.

HOLLOW ORGAN INJURY

When one of the hollow abdominal organs is injured, it may spill its acidic, bacteria-laden contents into the peritoneum, causing peritonitis (inflammation of the peritoneum), abscess (a collection of pus), or sepsis (overwhelming infection) over hours to days to weeks. Indeed, the most common cause for delayed trauma deaths is infection and sepsis. Obviously, this is more common if a ruptured hollow organ goes undiagnosed for some time. Again, the interplay of anatomy and physics creates the most common injuries. Hollow organ injuries are most often caused by penetrating trauma. The small and large intestines are relatively large targets for a stray bullet or knife blade that finds its way through your abdominal muscles and therefore are commonly injured. The stomach and duodenum are somewhat protected from blunt trauma because they are tucked up under the ribcage.

The Retroperitoneum

The kidneys live behind the peritoneal cavity, along with the pancreas, duodenum, and ureters. Bleeding from these structures may be massive and is usually caused by a pelvic fracture or lumbar spinal fracture, which typically requires a significant mechanism of injury. Some neat (but rarely seen) physical exam findings that indicate a retroperitoneal bleed include Grey Turner’s sign (bruising of the flanks) and Cullen’s sign (bruising around the umbilicus). These signs usually take 24-48 hours to develop. The kidneys can be bruised, lacerated, or fractured. A kidney bruise usually heals slowly on its own, with bed rest and plenty of fluids. Kidney lacerations and fractures, on the other hand, are more serious and may require surgical repair. The ureters are delicate and easily injured, either by blunt (shearing forces) or penetrating trauma. In contrast, the pancreas and the duodenum lie deep within the retroperitoneum, are well-protected, and are rarely injured.
When it is injured, a classic mechanism of pancreatic injury is being thrown forward onto the handlebars of a bicycle forcefully.

**PELVIC ORGAN INJURY**

Injury to the pelvic organs is usually caused by significant force that results in a pelvic fracture. The bladder is more likely to be injured when it happens to be full at the time of the trauma. You should suspect a bladder injury in any intoxicated patient with blunt lower abdominal trauma. The patient will complain of being unable to urinate, and they may have blood in the urine (hematuria). A tear in the urethra is more likely in men than in women, simply because men have a longer, less-protected urethra.

**CONCLUSION**

The thoracic and abdominal cavities contain most of the vital organs and major trauma to the chest and abdomen may produce significant injuries or death. In general, the treatment of major thoracic and abdominal trauma is stabilization and rapid transport. This ensures that the patient will get to definitive care (ultimately, the operating room) as soon as possible. Ascertaining the mechanism of injury is a vital piece of the puzzle, and it is something that only EMS can accurately provide, especially with the critically injured trauma victim. As with any patient, your focus will be the ABC’s – airway management with spinal precautions (do not forget the latter!), administration of high-flow oxygen, ventilatory support as needed, control of external bleeding, IV fluids, monitoring, and rapid transport. Next month’s article will move on to address trauma to the head, spine, and extremities.

**WRITTEN BY:**  **JESSICA VAN VOORHEES, M.D.**
FDNY Office of Medical Affairs

**REFERENCES**


1. During which phase of trauma care are preventative measures like seatbelts and car-seats targeted?
   a) pre-hospital phase  
   b) pre-event phase  
   c) event phase  
   d) post-event phase  
   e) ICU phase

2. What is the most commonly fractured bone?
   a) the temporal bone of the skull  
   b) the clavicle  
   c) the humerus  
   d) the radius  
   e) the femur

3. What is the definition of a flail chest?
   a) more than 3 rib fractures  
   b) 2 or more adjacent ribs that are fractured in 3 or more places  
   c) 3 or more adjacent ribs that are fractured in 2 or more places  
   d) bruising of the chest wall in the form of a “seatbelt sign”  
   e) any rib fracture that punctures the lung to cause a hemothorax

4. The presence of blood and air in the pleural cavity after thoracic trauma is called…
   a) pneumothorax  
   b) open pneumothorax  
   c) hemothorax  
   d) hemopneumothorax  
   e) tension pneumothorax

5. If a patient bleeds into the pleural space, filling the entire right half of the chest to form a massive hemothorax, how much blood has the patient lost?
   a) 250-500 mL  
   b) 500-1000 mL  
   c) 1-2 L  
   d) 2-3 L  
   e) 3-4 L

6. Which are among the top 5 causes of trauma death?
   a) MVCs, domestic violence, and shaken-baby syndrome  
   b) MVCs, assaults, and TASER-induced injuries  
   c) MVCs, electrocution, and snake bites  
   d) MVCs, stabblings, and gun shot wounds  
   e) MVCs, smoke inhalation/burns, and drowning

7. Which of the following is a life-threatening vascular injury that is most likely to be associated with clavicular fracture?
   a) subclavian artery hemorrhage  
   b) external jugular venous hemorrhage  
   c) internal jugular venous hemorrhage  
   d) inferior vena caval disruption with massive hemorrhage  
   e) bradycardia, low-voltage QRS, and a new systolic murmur

8. What is the treatment of a simple rib fracture?
   a) a rigid splint applied to the chest wall  
   b) sedation and immediate intubation  
   c) oxygen, encouragement to take deep breaths, and possibly analgesia  
   d) an ACE wrap tightly bound around the patient’s torso  
   e) massage at the point of maximal crepitus

9. A patient presents with a chest wall injury. He has had increasing shortness of breath and is now tachycardic and hypotensive. The trachea is deviated to the left. What is the next treatment that you should perform?
   a) endotracheal intubation  
   b) place an IV and provide fluids for the hypotension  
   c) needle decompression in the LEFT 2nd intercostal space in the mid-clavicular line  
   d) needle decompression in the RIGHT 2nd intercostal space in the mid-clavicular line  
   e) rapid transport without delay for any intervention

10. What are the 3 classic signs of pericardial tamponade that make up Beck’s Triad?
    a) narrow pulse pressure, tachycardia, and hypertension  
    b) quiet heart sounds, JVD, and bradycardia  
    c) hypotension, distended neck veins, and muffled heart sounds  
    d) bradycardia, low-voltage QRS, and a new systolic murmur  
    e) tachypnea, high-voltage QRS, and muffled heart sounds
Journal CME Credit Answer Sheet

Based on the CME article, place your answers to the quiz on this answer sheet. Respondents with a minimum grade of 80% will receive 1 hour of Online/Journal CME.

Please submit this page only once, by one of the following methods:
• FAX to 718-999-0119 or
• MAIL to FDNY OMA, 9 MetroTech Center 4th flr, Brooklyn, NY 11201

Contact the Journal CME Coordinator at 718-999-2790:
• three months before REMAC expiration for a report of your CME hours.
• for all other inquiries.

Monthly receipts are not issued. You are strongly advised to keep a copy for your records.

Note: if your information is illegible, incorrect or omitted you will not receive CME credit.

check one: □ EMT □ Paramedic □ other

Name _____________________________________________________________________

NY State / REMAC # or “n/a” (not applicable) _____________________________________________________________________

Work Location ___________________________________________________________

Phone number _____________________________________________________________________

Email address _____________________________________________________________________

Submit answer sheet by the last day of this month.

January 2011 CME Quiz

1. _____________________________________________________________________ Required for BLS & ALS providers

2. _____________________________________________________________________

3. _____________________________________________________________________

4. _____________________________________________________________________

5. _____________________________________________________________________

6. _____________________________________________________________________ Required for ALS providers only

7. _____________________________________________________________________

8. _____________________________________________________________________

9. _____________________________________________________________________

10. _____________________________________________________________________
# Citywide CME – January 2011

*Sessions are subject to change without notice. Please confirm through the listed contact.*

<table>
<thead>
<tr>
<th>Boro</th>
<th>Facility</th>
<th>Date</th>
<th>Time</th>
<th>Topic</th>
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<td>BK</td>
<td>Kingsbrook</td>
<td>TBA</td>
<td>TBA</td>
<td>TBA: call to inquire →</td>
<td>ED Conference Room</td>
<td>Dr Hew</td>
<td>Manny Delgado 718-363-6644</td>
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<td>LICH</td>
<td>TBA</td>
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<td>Avram Conference Room &quot;G&quot;</td>
<td>Dr Vlasica</td>
<td>Aaron Scharf 718-780-1859</td>
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<tr>
<td></td>
<td>Lutheran</td>
<td>4&lt;sup&gt;th&lt;/sup&gt; Wed</td>
<td>1730-1930</td>
<td>Call Review RSVP →</td>
<td>Call for location →</td>
<td>Dr Chitnis</td>
<td>Dale Garcia 718-630-7230 <a href="mailto:dgarcia@lmcmc.com">dgarcia@lmcmc.com</a></td>
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<tr>
<td>MN</td>
<td>NY Presbyterian</td>
<td>2/3</td>
<td>1630-1930</td>
<td>Lecture: Dive Emergencies/CO Poisoning</td>
<td>Weill Cornell Campus M-107</td>
<td>TBA</td>
<td>RSVP: <a href="mailto:ssamuels@nyp.org">ssamuels@nyp.org</a> Ana Doulis 212-746-0885 x2</td>
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<tr>
<td></td>
<td>NYU School of Medicine</td>
<td>1/24</td>
<td>0800-1000</td>
<td>Lecture: Pulmonary Edema</td>
<td>Schwartz Lecture Hall 401 E 30 Street</td>
<td>TBA</td>
<td>Jessica Kovac 212-263-3293</td>
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<td>QN</td>
<td>FDNY-BOT</td>
<td>Cancelled until further notice</td>
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<td></td>
<td>NYH Queens</td>
<td>Thursdays</td>
<td>0800-0900</td>
<td>Call Review/Trauma Rounds</td>
<td>East bldg, courtyard flr</td>
<td>Dr Sample</td>
<td>Mary Ellen Zimmermann RN 718-670-2929</td>
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<tr>
<td></td>
<td>Mt Sinai Qns</td>
<td>last Tues</td>
<td>1800-2100</td>
<td>Lecture</td>
<td>25-10 30 Ave, conf room</td>
<td>Dr. Dean</td>
<td>Donna Smith-Jordan 718-267-4390</td>
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<td>Parkway Hosp</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt; Wed</td>
<td>1830-2130</td>
<td>Call Review</td>
<td>Board Room, 1st flr</td>
<td><a href="mailto:pabuzzino@capitolhealthmgmt.com">pabuzzino@capitolhealthmgmt.com</a></td>
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<td>Queens Hosp</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; Thurs/4&lt;sup&gt;th&lt;/sup&gt; Thurs</td>
<td>1615-1815</td>
<td>Call Review</td>
<td>Emergency Dept</td>
<td>718-883-3070</td>
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<td>SI</td>
<td>RUMC</td>
<td>1/18/11</td>
<td>1100</td>
<td>Call Review/Protocol Update</td>
<td>SIPP auditorium</td>
<td>Dr. Ben-Eli</td>
<td>William Amaniera 718-818-1364</td>
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<td>2/4/11</td>
<td>0900</td>
<td>Call Review/Protocol Update</td>
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## 2011 NYC REMAC Examination Schedule

<table>
<thead>
<tr>
<th>Month</th>
<th>REMAC Refresher Exam (Written only - CME letter required)</th>
<th>REMAC Quarterly Exam - $100 fee (Written &amp; 3 Orals Scenarios)</th>
<th>NYS/DOH Written Exam</th>
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<tbody>
<tr>
<td></td>
<td>Registration Deadline</td>
<td>Exam Date (on Wednesdays)</td>
<td>Registration Deadline</td>
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<tr>
<td>January</td>
<td>12/31/10</td>
<td>1/19/11</td>
<td>Thursday 1/6/11</td>
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<tr>
<td>February</td>
<td>1/31/11</td>
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<td>March</td>
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<td>July</td>
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<td>7/20/11</td>
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<tr>
<td>November</td>
<td>10/31/11</td>
<td>11/16/11</td>
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<tr>
<td>December</td>
<td>11/30/11</td>
<td>12/21/11</td>
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The REMAC Refresher Written examination is offered monthly for paramedics who meet CME requirements and whose REMAC certifications are either current or expired less than 30 days. To enroll, call 718-999-7074 before the register registration deadline above. Candidates may attend an exam no more than 6 months prior to expiration. Refresher exams are held at 07:00 or 18:00 hours at FDNY-EMS Bureau of Training, Fort Totten, Queens.

The REMAC Quarterly Written & Orals examination is for initial certification, or for inadequate CME, or for certifications expired more than 30 days. Registrations must be postmarked by the deadline above. Email swansoc@fdny.nyc.gov for instructions. You are encouraged to register at least 30 days prior to the exam - seating is limited. The exam fee as above is by money order only. The Quarterly is held at FDNY-EMS Bureau of Training, Fort Totten, Queens.