



Continuing Medical Education - News & Information

May – June, 2016 - Volume 21, Issue 3-4

Multi-Agency Edition

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Journal CME Newsletter
FDNY - Office of
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From the Editor

**** On September 1, 2016 Protocol revisions take effect ****

REMEMBER: the protocols on the street are the protocols on the exam!

Study the version that your Medical Director has assigned you to use in the field. There will be no conflict on the exam.

Always see nycremsco.org for the current approved protocols

**** All candidates must now meet CME requirements ****

- **All REMAC paramedics and candidates should review Certification & CME Information on page 3 journal and plan accordingly.**
- **All upcoming exam candidates, see registration instructions at the bottom of the last page of this journal.**
- **Candidates who will not have a CME letter at the time of their REMAC exam must email Samuel.Jimenez@fdny.nyc.gov ASAP.**

**** On September 1, 2016 REMAC Protocol revisions take effect for the field and exams ****

REMEMBER: the protocols on the street are the protocols on the exam!

Always see nycremsco.org for the current approved protocols

For updates, see REMAC Advisory 2016-02 & 03 at nycremsco.org

General Operating Procedures

- No changes

BLS Protocols

- 407 – Wheezing
 - Removes age limit for epinephrine
- 410 – Anaphylaxis
 - Removes age limit for epinephrine
- 421 – Head and Spine Injuries
 - Adds statement: hyperventilation not to be performed

ALS Protocols

- 506 – APE
 - Removes morphine sulfate
- 511 – AMS
 - Adds IN route for glucagon

- 513 – Seizures
 - Adds IN route for glucagon
- 528 – Burns
 - Changes fentanyl to Standing Order
- 529 – Pain Management
 - Changes fentanyl to Standing Order
- 550 – Peds Respiratory Arrest
 - Changes naloxone increments
- 556 – Peds AMS
 - Adds IN route for glucagon
- 557 – Peds Seizures
 - Adds IN route for glucagon
 - Removes rectal diazepam
- New protocol – Hyperglycemia

Appendices

- No changes

REMAC Exam Study Tips

<u>REMAC candidates have difficulty with:</u>	<u>REMAC Written exams are approximately:</u>	
* Epinephrine use for peds patients	15% Protocol GOP	35% Adult Med. Emerg.
* 12-lead EKG interpretation	10% BLS	15% Adult Trauma
* ventilation rates for peds & neonates	10% Adult Arrest	15% Pediatrics

Certification & CME Information

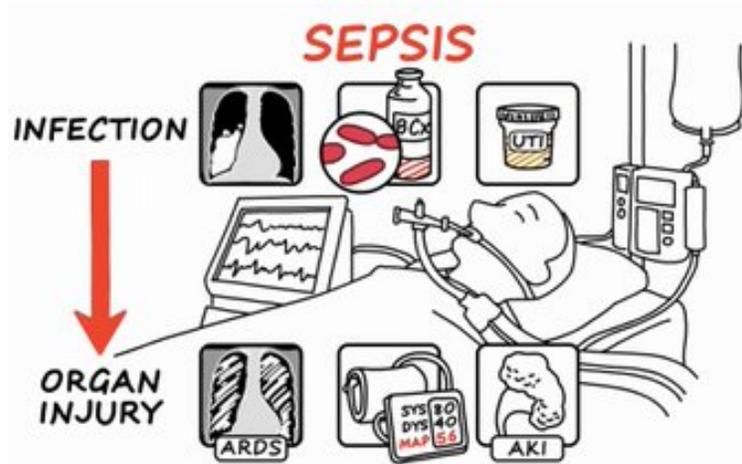
- **By the day of their exam, all REMAC paramedics and candidates must present a letter from their Medical Director verifying fulfillment of CME requirements.**
 - **Upcoming candidates without a CME letter ASAP must email Samuel.Jimenez@fdny.nyc.gov**
 - **FDNY paramedics, see your ALS coordinator or Division Medical Director for CME letters.**
 - **CME letters must indicate the proper number of hours, per REMAC Advisory # 2007-11:**
 - 36 hours - Physician Directed Call Review
 - *ACR Review*
 - *QA/I Session*
 - *Emergency Department Teaching Rounds - **Maximum of 18 hours***
 - 36 hours - Alternative Source CME - **Maximum of 12 hours per venue**
 - *Online CME (see examples below)* - *Clinical rotations*
 - *Lectures / Symposiums / Conferences* - *Associated Certifications – 4 hours each:*
 - *Journal CME* *BCLS / ACLS / PALS / NALS / PHTLS*
 - **Failure to maintain a valid NYS EMT-P card will suspend your NYC REMAC certification until NYS is recertified.**
-

REMAC certification exams are held monthly for new and expired candidates, and for currently certified paramedics who may attend up to 6 months before their expiration date.

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

REMSCO:	www.NYCREMSCO.org	Online CME:	www.EMS-CE.com	www.MedicEd.com
			www.EMCert.com	www.WebCME.com
NYS/DOH:	www.Health.State.NY.US		www.EMINET.com	statenilandem.com

SEPSIS



Background

Sometimes when a celebrity becomes affected by a disorder or condition, we listen more intently and take note. Advocacy groups have shared these stories to raise awareness. Patty Duke was a beloved popular culture icon, best known for her role in *The Patty Duke Show*, and the Broadway play and film “The Miracle Worker.” She was an Academy Award-winning actress and a pioneering mental health advocate who died unexpectedly on March 29, 2016 at the age of 69. In a statement released upon her passing, her cause of death was listed as sepsis, caused by a ruptured intestine.



Sepsis Can Hide in Plain Sight



Even more striking are the stories of a child who dies. In one highly publicized, tragic story in 2012, a 12-year-old boy named Rory Staunton scraped his arm while diving for a basketball in the gym at his school. Eventually, he began vomiting and complaining of leg pain. His family doctor sent him to the emergency department at a major teaching hospital. From there, he was sent home with Tylenol. Three days later, he died from septic shock.

His family, along with other families similarly affected, has been working to enact legislation for the implementation of sepsis protocols to ensure speedy treatment of children with sepsis.

In New York State, the Rory Staunton Foundation, created by Rory's parents after his death, has worked to enact legislation in New York (the first in the country). In 2013, New York State established a statewide mandate requiring all hospitals to adopt sepsis protocols designed to improve rapid identification and treatment of sepsis. Known as Rory's Regulations, they are estimated to save 5,000 to 8,000 lives per year, according to the New York State Department of Health. The Rory Staunton Foundation is now working towards the implementation of Rory's Regulations in every state by 2020. In addition, there is a move to incorporate sepsis education in New York City's schools. The education module on sepsis was piloted in New York City classrooms in September 2015, and will be available to school districts, principals, and teachers in 2016.



Why is sepsis now more of a concern than ever before? The answer is that sepsis is a major public health concern with medical costs exceeding \$20 billion a year, and increasing at a rate of 12% per year. Sepsis also has a high mortality rate. According to the CDC, it is the ninth leading cause of disease-related death. Tragically, as a result, people of all ages can either die very quickly, or suffer months to years of disability. The diagnosis of sepsis is increasing due to aging populations with multiple comorbid conditions, as well as a greater recognition of this syndrome. The good news is that there are interventions proven to reduce mortality and shorten hospital stays. For best results, EMS needs to quickly recognize sepsis and initiate proper treatment.

Some revealing facts about sepsis include:

- FACT: 258,000 Americans die every year from sepsis.
- FACT: There are 1.6 million cases of sepsis every year, 20% of which will die. That is more than breast cancer, prostate cancer and AIDS combined.
- FACT: If treated within the first 4 hours, your chance of survival is over 50%.
- FACT: For every hour that treatment is delayed, mortality increases by 7.6%.
- FACT: After 12 hours, your chance of survival drops to 15 %.



While the clinical syndrome of sepsis has been studied for decades, there has been an increasing awareness recently. This can partially be attributed to the Surviving Sepsis Campaign (www.survivingsepsis.org).

In February 2016, new sepsis definitions and criteria, referred to as **Sepsis-3**, were issued by the Society for Critical Care Medicine (SCCM) and the European Society for Intensive Care Medicine (ESICM) at the 45th Annual Critical Care Congress held in Orlando, Florida. This is the first time in over two decades that new definitions for sepsis and septic shock have been issued by the major critical care societies. These new definitions were designed to differentiate sepsis from uncomplicated infection and reflect new understanding of the pathophysiology, management and epidemiology of sepsis.

The new definition of sepsis coming out of this meeting is “**a life-threatening organ dysfunction caused by a dysregulated host response to infection.**” The guidelines, which are intended to increase the precision and speed of sepsis diagnosis, shift the diagnostic focus toward infection-triggered organ dysfunction and refine the definition of septic shock.

Important changes include the SOFA (sequential organ failure assessment) Score, and a new rapid bedside assessment score called **quick-SOFA (qSOFA)**. Of the various aspects of the new definitions, the biggest attention getter online has certainly been the qSOFA score.

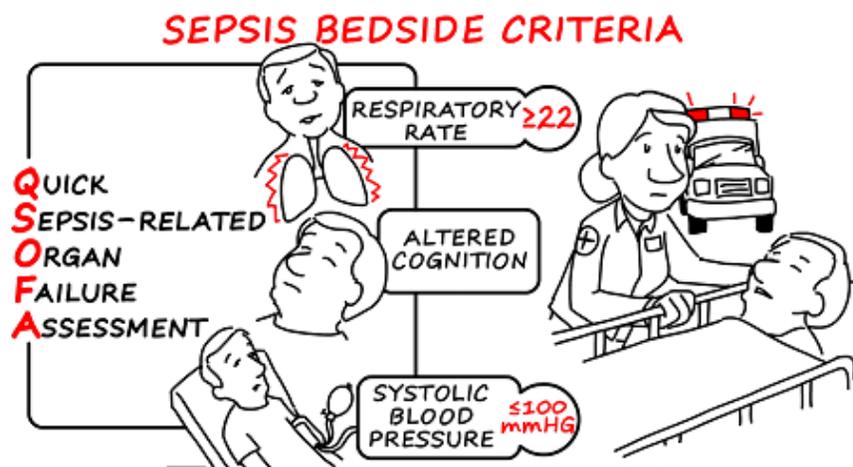
qSOFA (Quick SOFA) Criteria

The qSOFA (quick Sequential Organ Failure Assessment) score was introduced as a simplified way to initially identify patient with an infection who are at high risk for a poor outcome. The qSOFA score has only **three** clinical criteria:

- Respiratory rate ≥ 22 /min
- Altered mentation
- Systolic blood pressure ≤ 100 mm Hg

Sepsis is diagnosed when the patient has a suspected or documented infection plus **at least two (2) qSOFA criteria**. While it does not capture all of the sepsis patients, this simple rule tells us that these patients need faster treatment to avoid the complications that will inevitably result from delays.

You may have noticed that some Emergency Departments now call a ‘Code Sepsis’ when you arrive with a patient meeting the criteria, similar to announcing a ‘Code Blue’ for a patient in cardiac arrest. In the in-hospital setting, that results in closer monitoring or ICU care. Identifying patients meeting qSOFA criteria in the out-of-hospital setting can lead to early notification and if indicated, intravenous normal saline resuscitation.



Septic Shock

Based on the new guidelines, a patient is considered to have **septic shock** when he/she has sepsis as above plus an **MAP (mean arterial pressure) < 65mm Hg** plus an **elevated lactate level (>2 mmol/L** in the absence of hypovolemia), which is assessed on a blood test and is a marker for cellular hypoxia. Mean arterial pressure is an important indicator of perfusion. An MAP of about 60 is necessary to perfuse coronary arteries, brain, and kidneys. The usual range is 70-110. Note: $MAP = [(2 \times \text{diastolic}) + \text{systolic}] / 3$. Diastole counts twice as much as systole because 2/3 of the cardiac cycle is spent in diastole.

If we look at the Emergency Department record for Rory Staunton, we notice that while he may not meet the new criteria, three important findings on his medical record – Temperature, Pulse and Respiratory Rate should warrant concern.

This report contains documentation entered between 03/29/2

Vital Signs & Measurements F/S General	
03/29/2012 21:26	Authored By:
BLOOD PRESSURE	
Blood Pressure Systolic	Systolic : 103 mmHg
Blood Pressure Diastolic	Diastolic : 50 mmHg
Blood Pressure Mean	Mean : 67 mmHg
TEMPERATURE	
Temperature Temperature (F) degree F	: 102 degrees F
Temperature Temperature (C) degree C	: 38.8 degrees C
PULSE	
Pulse Pulse Rate Rate (bpm)	: 131 bpm
RESPIRATORY	
Respirations Respiratory Rate Rate /min	: 22 /min
PULSE OXIMETRY	
Pulse Oximetry Saturation O2 Sat (room air) % (Room Air)	: 99
29-Mar-2012 21:26 Vital Signs & Measurements F/S General	

The history of an abrasion was an important finding when it was revealed that his infection was from an organism called *Streptococcus pyogenes*, a Group A Streptococcus commonly found on the skin. Group A Streptococcal infections have been the cause of Toxic Shock Syndrome with 50-80% mortality, Necrotizing Fasciitis with 30-40% mortality, and combined 67% mortality. People can develop sepsis from a simple scrape, wound or burn that was not properly cleaned.

Role of the Immune System

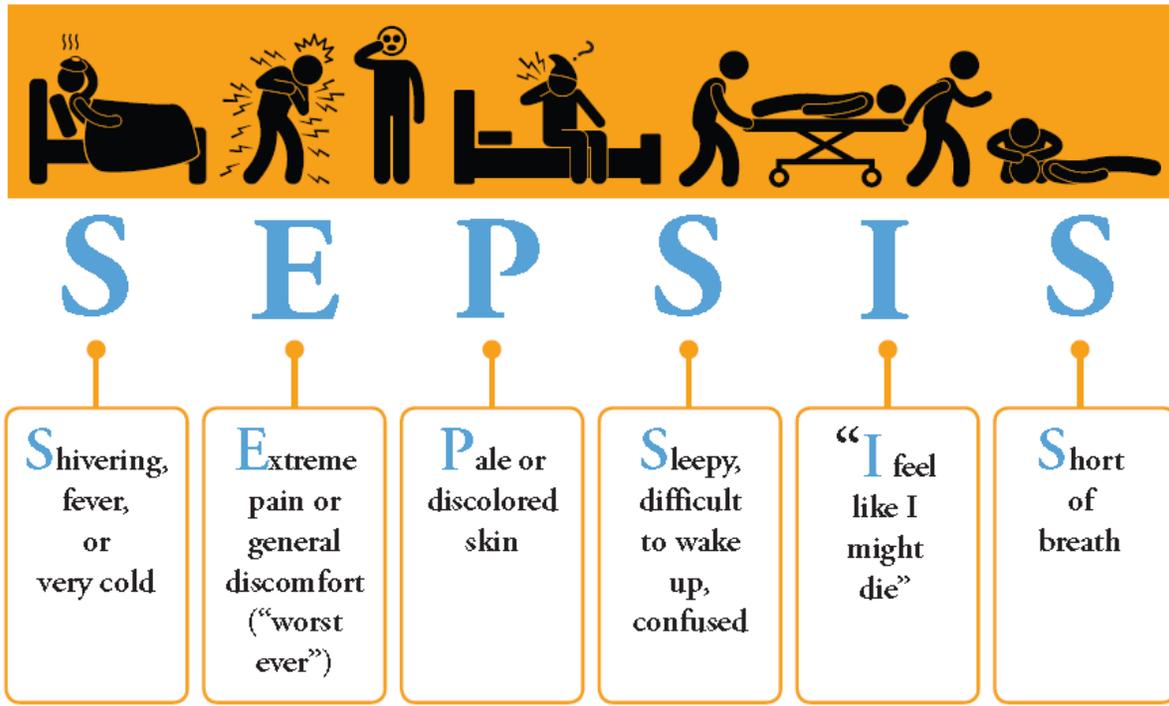
The immune system plays an important role in the body's defense against infection. Your immune system manages many different exposures to infection, both bacterial and viral, every day. White blood cells fire bullets at the bacteria or other invaders. Sometimes the immune response is so enormous that it damages healthy organs. With sepsis, the initial response produces inflammation, and then organs start to fail from lack of blood supply.



The very young, especially those less than 3 months, have a somewhat immature immune system. Because of this, the ED doctor often has the challenge of distinguishing between a febrile infant with a serious bacterial infection from one with a benign infection. In the past, bacterial meningitis and bacterial pneumonia were responsible for many pediatric deaths. Since the introduction new vaccines, there has been a decline in bacterial meningitis in pediatric patients. Currently, the most common serious bacterial infection in children less than 24 months old is a **Urinary Tract Infection (UTI)**.

History and Physical Examination

Symptoms of impending sepsis may include signs of infection (diarrhea, vomiting, sore throat, etc.), as well as fever. The skin may be warm or cold, depending on the adequacy of organ and skin perfusion. The Centers for Disease Control and Prevention has used the acronym S-E-P-S-I-S to spell out common symptoms:



Elderly Patients

Sepsis places certain groups at higher risk for death. Therefore, we are especially concerned with recognition of sepsis in its early stages in older populations. A significant and increasing threat to older adults, sepsis can go undetected or be misdiagnosed. As patients age, they are more susceptible not only to this potentially deadly condition but also to the chronic diseases with which sepsis is associated. The risk of sepsis is increased if patients have other chronic medical conditions. Other conditions making patients susceptible to infection include chronic steroid use, splenectomy, sickle cell disease, placement of indwelling devices and catheters, recent trauma or surgery, breach of skin integrity from wounds and burns, IV drug abusers and women who have recently given birth or had a termination of pregnancy or miscarriage.

Here is a common scenario seen in an elderly patient. You respond to a private home for a SICK call, where you find a 70 year-old male complaining of a cough for the past 5 days and feeling increasingly weak and tired. He reports fever, headache, slight nausea, and decreased oral intake. On exam, you find a respiratory rate of 24 breaths per minute, heart rate 80 beats per minute, and blood pressure 98/74 (MAP = 82). He is not altered and answers questions appropriately. Physical exam is significant for rhonchi in the left lower lung field.

By the qSOFA rule, this patient meets the criteria for sepsis. He has two of the critical signs elevated respiratory rate (RR > 22) and hypotension (systolic < 100 mmHg). The REMAC guideline below incorporates MAP and lactate to the list for screening for sepsis.

THE REGIONAL EMERGENCY MEDICAL SERVICES COUNCIL OF NEW YORK CITY

PROTOCOL APPENDICES

APPENDIX U

CRITERIA FOR SEVERE SEPSIS / SEPTIC SHOCK

At least three (3) of the following must be present, along with no evidence of shock from cardiac or traumatic etiologies

NOTE: DOCUMENTATION OF FLUID ADMINISTRATION IS REQUIRED

- 1) SBP < 90 mmHg or MAP < 65 mmHg
- 2) HR > 110/min
- 3) RR > 30/min or EtCO₂ < 30 mmHg
- 4) Temperature
 - a) **Skin: Tactile fever/hypothermia**

OR

- b) **Temperature > 100.4 F if thermometer available**

- 5) Unexplained altered mental status
- 6) Point of care lactate > 4 mmol/L

Step 6 in Appendix U refers to **Point-of-care testing** where a small blood sample can be drawn and tested by bedside equipment, if available.

The ALS Protocol 515-B provides supportive care for ventilation and circulation:

THE REGIONAL EMERGENCY MEDICAL SERVICES COUNCIL OF NEW YORK CITY

ADVANCED EMERGENCY MEDICAL TECHNICIAN (PARAMEDIC) PROTOCOLS

515-B

SEVERE SEPSIS/SEPTIC SHOCK

NOTE: THIS PROTOCOL IS TO BE USED FOR PATIENTS WITH ILLNESS OF A PRESUMED INFECTIOUS SOURCE. REFER TO APPENDIX U FOR CRITERIA.

1. Begin Basic Life Support Shock Measures.
2. If the patient is demonstrating signs of inadequate ventilation, perform Advanced Airway Management*.
3. Begin rapid IV/Saline Lock infusion of Normal Saline (0.9% NS) or Ringers' Lactate (RL) via one to two large bore (14-16) gauge catheters, up to 2 liters, via a macro-drip. Attempt IV access no more than twice.
Consider using the intraosseous route if peripheral attempts have failed.
 - a. Accurate documentation of pre-arrival fluid administration is required.
4. Begin Cardiac Monitoring, record and evaluate EKG rhythm.
5. Measure and record lactate level (if available).
6. Measure and record oral temperature (if available), also consider using last temperature obtained at patient's facility (if available).
7. Transport decision.
8. Contact Medical Control for implementation of one or more of the following MEDICAL CONTROL OPTIONS:

MEDICAL CONTROL OPTIONS:

OPTION A: Administer one (1) additional liter of Normal Saline (0.9% NS) or Ringers' Lactate (RL) via one to two large bore (14-16) gauge catheters.

* If the patient is alert prior to performing Advanced Airway Management, refer to Prehospital Sedation in General Operating Procedures. Prior permission from Medical Control is required.

Conclusion

This journal CME serves to review the syndrome of sepsis. Recognition of sepsis is the most important step because it can allow for rapid initiation of treatment in the field (ALS Protocol 515-B) or in the Emergency Department (Code Sepsis). We also need to keep in mind that the definition of shock in the child does not depend upon blood pressure, rather by signs of inadequate peripheral (distal) perfusion. A major role for EMS is first recognizing the patient at risk for sepsis. This will create the level of urgency required for the entire health care team to start the necessary care and halt the decline toward irreversible septic shock.

Written by: **Bradley Kaufman, MD**
First Deputy Medical Director

Lt. Joan Hillgardner
FDNY Office of Medical Affairs

References

Sepsis Requires Urgent Attention By Jessica Girdwain *Aging Well* Vol. 6 No. 3 P. 26

CDC Sepsis Q&A <http://www.cdc.gov/sepsis/basic/qa.html>

Surviving Sepsis Campaign <http://www.survivingsepsis.org/SiteCollectionDocuments/SSC-Statements-Sepsis-Definitions-3-2016.pdf>

JAMA Articles – February 23, 2016, Vol. 315, No. 8:

Singer M et al “The Third International Consensus Definitions for Sepsis and Septic Shock (Sepsis-3)” *JAMA* 2016;315[8] 801-810

Abraham E “Editorial-New Definitions for Sepsis and Septic Shock”

Jacobs, J “New Sepsis Diagnostic Guidelines Shift Focus to Organ Dysfunction”, p.739-740

https://mobile.twitter.com/JAMA_current/status/703566957816238080

Sepsis Alliance www.sepsis.org

The Rory Staunton Foundation <http://rorystauntonfoundationforsepsis.org/>

http://www.nytimes.com/2012/07/12/nyregion/in-rory-stauntons-fight-for-his-life-signs-that-went-unheeded.html?pagewanted=all&_r=0

NYC Sepsis Education Video- *Sepsis Education: Knowledge for a Safer Future.*

<https://rorystauntonfoundationforsepsis.org/presenting-sepsis-education-knowledge-for-a-safer-future/>

ACEP News November 2007 “Is It Septic Shock? Check Lactate Level”

CME JOURNAL 2016 QUIZ J05-06 SEPSIS

All 10 questions for ALS and BLS Providers

1. If sepsis is treated within the first 4 hours, the chance of survival is?
 - a. over 10%
 - b. over 50%
 - c. over 70%
 - d. over 90%

2. For every hour that treatment is delayed, mortality increases by 7.6%.
 - a. True
 - b. False

3. The new definition of sepsis is, a life-threatening organ dysfunction caused by...
 - a. an autoimmune response to a virus
 - b. an inadequate host response to a hypotensive episode
 - c. a dysregulated host response to infection
 - d. a dysregulated host response to an allergen

4. Which of the following is NOT part of the qSOFA clinical criteria?
 - a. respiratory rate ≥ 22 /min
 - b. altered mentation
 - c. oxygen saturation $\leq 94\%$
 - d. systolic BP ≤ 100 mm Hg

5. For a patient to be considered to have septic shock, the MAP must be < 90 mm Hg.
 - a. True
 - b. False

6. The most common serious bacterial infection in patients less than 24 months old is
 - a. meningitis
 - b. urinary tract infection
 - c. pneumonia
 - d. septic arthritis

7. Patients with chronic disease are at increased risk for developing sepsis.
 - a. True
 - b. False

8. You are caring for a 90 year old man who is complaining of cough and fever for the past 2 days. He is confused. BP 160/90, HR 110, RR 20. Does he meet qSOFA criteria?
 - a. Yes
 - b. No

9. You are caring for a 32 year old man with a GSW to the abdomen. He is confused. BP 90/50, HR 120, RR 24. Does he meet qSOFA criteria?
 - a. Yes
 - b. No

10. The new sepsis definitions and criteria that were published in February 2016 are referred to as
 - a. Sepsis-3
 - b. qSepsis
 - c. Septic shock
 - d. SOFA

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 July 2016**

May - June 2016 CME Quiz		
1.		Questions 1-10 for all providers
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Regional CME – Sessions are subject to change. Please confirm through the listed contact.

See other opportunities at www.nycremsco.org under News & Announcements

Note: A potential source of **Call Review** is **E.D. Teaching Rounds** (maximum of 18 hours)
See any hospital E.D. Administrator for availability (especially HHC hospitals)

Boro	Facility	Topic	Location	Contact
BK	Kingsbrook	contact to inquire →	ED Conference Room	Aaron Scharf 718-363-6644
	Lutheran	contact to inquire → Call Review	Inquire →	Dale Garcia 718-630-7230 dgarcia@lmcmc.com
MN	Lenox Hill & Health Plex	contact to inquire → Call Review , Lecture	Inquire →	Brian Lynch 512-589-9128 Lenox Hill Hospital EMS
	Mt Sinai Hosp	contact to inquire → Call Review	Inquire →	Eunice Wright eunice.wright@mountsinai.org
	NY Presbyterian	contact to inquire →	Inquire →	Steven M. Samuels 212-746-0596
	NYU School of Medicine	contact to inquire → Call Review , Lecture	Inquire →	danielle.milbauer@nyumc.org http://cme.med.nyu.edu/course
QN	Elmhurst Hosp	Call Review : Trauma Rounds	A1-22 Auditorium 3 rd Wednesdays, 0830-0930	Anju Galer RN 718-334-5724 galer@nychhc.org
	Mt Sinai Qns	Call Review , Lecture	25-10 30 Ave, conf room last Tuesdays, 1800-2100	Donna Smith-Jordon 718-267-4390
	NYH Queens	contact to inquire →	East bldg, courtyard flr	Mary Ellen Zimmermann RN 718-670-2929
	Queens Hosp	Call Review	Emergency Dept 2 nd & 4 th Thurs 1615-1815	Maria Jones or Julia Fuzailov 718-883-3070
	St John's University	contact to inquire → Call Review	175-05 Horace Harding Expwy	718-990-8436 www.stjohns.edu/ems/cme
	St John's Episcopal	contact to inquire → Lecture	1 st floor Board Room	Michelle Scarlett mscarlet@ehs.org
SI	RUMC	contact to inquire → Call Review , Lecture	Inquire →	Tony McKay NRP amckay@rumcsi.org
	SIUH North & South	contact to inquire → Call Review	Inquire →	Holly Acierno RN hacierno@SIUH.edu

2016 NYC REMAC Examination Schedule

updated 6/16/16

Month	Registration Deadline	Refresher exams ¹ – no fee for exam				Basic exams ² <i>all at 18:00</i>	NYS/DOH Written ³
		10:00 exams		18:00 exams			
January	1/1/16	1/20/16		1/15/16	1/20/16	1/25/16	1/21/16
February	2/1/16	2/15/16		2/15/16	2/17/16	2/19/16	2/23/16
March	3/1/16	---		3/9/16	3/11/16	3/15/16	3/18/16
April	4/1/16	4/25/16		4/20/16	4/22/16	4/25/16	4/27/16
May	5/1/16	5/18/16		5/18/16	5/20/16	5/23/16	5/25/16
June	6/1/16	6/15/16		6/15/16	6/17/16	6/20/16	6/22/16
July	7/1/16	---		7/18/16	7/22/16	7/25/16	7/27/16
August	8/1/16	8/22/16		8/22/16	8/26/16	8/29/16	8/24/16
September	9/1/16	9/5/16	9/19/16	9/14/16	9/16/16	---	9/21/16
October	10/1/16	10/10/16		10/10/16	10/12/16	10/21/16	10/19/16
November	11/1/16	11/16/16	11/20/16	11/16/16	11/18/16	---	11/20/16
December	12/1/16	12/11/16	12/14/16	12/14/16	12/16/16	---	12/21/16

¹ **REMAC Refresher examination** is offered for paramedics who meet CME requirements **and** whose REMAC certifications are either current or expired **less** than 30 days. To enroll, go to the REGISTER link under “News & Announcements” at nycremsco.org before the registration deadline above. Candidates may attend an exam no more than 6 months prior to expiration.

² **REMAC Basic examination** is for initial certification, **or** inadequate CME, **or** certifications expired **more** than 30 days. Seating is limited. Registrations **must** be postmarked by the deadline above. Exam fee by \$100 **money order** to **NYC REMSCO** is required.

All Basic candidates must meet new education requirements. Email Samuel.Jimenez@fdny.nyc.gov for instructions.

³ **NYS/DOH exam dates** are listed for information purposes only. Scheduling is through your paramedic program or contact NYS DOH for more information.