

**Northwest Community EMS System  
May 2018 CE: Summer Emergencies  
Credit Questions**

Name:	Date submitted:
EMS Agency/hospital:	Credit awarded (date):
EMSC/Educator reviewer:	Returned for revisions:
	Revisions received:

This packet should take 2 hours to complete – which earns you the equivalent of the 2 hour live CE class.

Sources: May CE handout; May CE slide deck (website); SOPs: NWC EMSS Website.

On the following pages, there are a total of five case studies that are identical to the cases in the May handout and power point (PP) presentation. It will be easier to answer the questions after reviewing the materials from both the PP and the handout.

Please remember that the cases study information will concentrate its scope to the three subject matters in this month's continuing education: Heat emergencies, submersion injuries, and allergic reaction or anaphylaxis situations.

If you should have any questions, please feel free to Contact Susan Wood, RN, Paramedic at [swood@nch.org](mailto:swood@nch.org)



**NORTHWEST  
COMMUNITY  
EMERGENCY  
MEDICAL  
SERVICES  
SYSTEM**

## Case Study # 1

Paramedics called to a local office building for pt c/o difficult breathing.

CC/HPI: 36/M is complaining of fullness in his throat and difficulty breathing, began ~20 minutes after taking an Aleve (given to him by a co-worker) for a headache

PMH-Meds: Pt. denies any PMH or known allergies

PE: BP 124/72, P 120, ECG ST, R 24, Lungs expiratory wheezing, O<sub>2</sub> sat 95% RA  
Skin warm & dry, slightly flushed, urticaria noted on chest, wt 210 lbs

1 What is your initial impression/diagnosis?

2 How would you rate the severity – mild, moderate, or severe?

What sign/symptoms support that level of severity?

3 What is the 1<sup>st</sup> med, after O<sub>2</sub>, that EMS would give this pt?

Dose?

Route?

Site?

Why is that site recommended?

What is the desired action for this medication?

What are side effects of this medication?

Can this medication be repeated? If so, when?

4 What is the 2<sup>nd</sup> medication that should be given?

Dose?

Route?

What is the desired action for that medication?

What are side effects of this med?

5 How does the action of the 1<sup>st</sup> & 2<sup>nd</sup> medication differ?

6 What is the 3<sup>rd</sup> med that should be given to this patient?

Dose?

Route?

Action?

## Case Study # 2

Paramedics called to a picnic area for a woman with a bee sting.

CC/HPI: Friend stated she (40/F) was drinking a pop and a bee must have flown inside the can; she become unconscious right before medics arrived

PMH-Meds: Very allergic to bee stings; did not have her EpiPen with her  
No other PMH, meds or allergies known

PE: Facial edema w/ audible stridor noted, wt ~150 lbs  
BP 78/50, P 142, ECG ST, R 30, shallow, Lungs decreased BS bilat, O<sub>2</sub> sat 77% RA

1 What is your initial impression/diagnosis?

2 How would you rate the severity – mild, moderate, or severe?

What sign/symptoms supports that level of severity?

3 What is the 1<sup>st</sup> med, after O<sub>2</sub>, that you would give this pt?

Dose?

Route?

What is the desired action for this medication?

What are side effects of this medication?

Can this medication be repeated? If so, when?

4 What if are unable to immediately establish an IV/IO on this pt?

At what rate should the IVF be infused?

5 If the SBP remains below 90, what should be given?

Dose?

What additional medication should be given?

6 Dose?

Route?

What is the desired action for that medication?

What are side effects of this med?

7 If this pt were to go into cardiac arrest, how would the care differ?

### Case Study # 3

Paramedics called to the park for the 28F sitting on the park bench

CC/HPI: Pt has her eyes closed, with her head back resting on the bench,

PMH-Meds: Diphenhydramine for allergies; had a late night "celebrating" her boyfriend's birthday at the bar

PE: Her face is flushed and warm to the touch with sweating noted on skin.

BP 96/50, P 130, weak, R 32, able to clearly speak but appears tired from trying to get in a quick 5 mile run in-now feels nauseous.

Lungs clear, O2 sat 95%, EtCO2 58 w/ square shaped waveform

1 What is your impression/diagnosis?

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How would you rate the severity?

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2 What sign/symptoms support that level of severity?

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3 What is your 1<sup>st</sup> treatment for this pt?

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Route?

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4 What is your 2<sup>nd</sup> treatment for this pt?

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Dose?

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Route?

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5 What is the 3<sup>rd</sup> treatment for this pt?

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Special considerations?

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6 What additional precautions should be taken for this pt?

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7 What should be thought of in case the patient does start to seize?

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8 What medication should be given if seizure activity is noted?

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Dose?

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9 What medications or substances predispose patients to heat emergencies?

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## Case Study # 4

Paramedics called to the train station where a 45/M is lying on the ground

CC/HPI: Pt has his eyes closed, not responsive to verbal stimuli, only groans to verbal stimuli and is noted to be wearing multiple layers of coats.

PMH-Meds: UNKNOWN

PE: His face is cherry red and hot to the touch with dry skin noted.

T: 106° F, BP 80/50, P 112, R 32, after pulling off multiple layers his skin is hot to touch

Lungs clear, O<sub>2</sub> sat 93%, EtCO<sub>2</sub> 58 w/ square shaped waveform;

1 What is your impression/diagnosis?

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What other situations should be anticipated when finding a pt in this condition?

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Why does she have an altered mental status?

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How should her airway be secured?

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2 How would you rate the severity?

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What sign/symptoms support that level of severity?

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3 What is your 1<sup>st</sup> treatment for this pt?

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Route?

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4 What is your 2<sup>nd</sup> treatment for this pt?

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Dose?

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Route?

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Can this be repeated, if so when?

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5 Due to pts level of distress, should preparations be taken for other problems?

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What?

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6 What is the concern in precipitating a quick change in temperature for this patient?

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7 What should be thought of in case the patient does start to seize?

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8 What medication should be given if seizure activity is noted?

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Dose?

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9 How should you attempt to cool this patient?

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## Case Study # 5

EMS is dispatched to a local recreation area for a possible drowning. Witnesses state a ~ 60/ y/o local male resident was seen leaning over the side of his boat reaching for something floating in the water, then falling out of the boat. There is a strong current and he was noted to struggle for a short time before disappearing under the water. Witnesses state they immediately drove their boats to the site where he was last seen, and found him a short distance downstream, awake but exhausted, clinging to some rocks, coughing. You find the patient propped up on the bank, responsive, with increased work of breathing and frequent coughing.

CC/HPI: "It's hard to breathe"

PMH-Meds: No PMH or meds – "I don't go to doctors." *Admits to daily alcohol use.*

PE: A&O X 4. BP 156/86, P 118, ECG ST, R 26, SpO2 91%, ETCO2 32 and square. Auscultation of breath sounds reveals "congestion" / rhonchi throughout. No accessory muscle use noted. He is able to speak 3-4 words at a time. Skin is pale & moist, & is shivering mildly (still in wet clothing). Pulses strong, reg. - ST. He moves everything, and denies pain. T 96.4 F

1 What is your impression/diagnosis?

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What interventions are indicated as a result of your findings in A and B of physical examination?

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Does this pt need SMR?

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2 If the patient's SBP dropped to < 90 in spite of ↓PEEP, but still had adequate R effort, how should oxygenation be managed?

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3 What other interventions are indicated?

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4 Would you start an IV on this pt?

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5 The patient does not want to go to the hospital. He says "my friends here will take me home". What should EMS discuss with the patient to increase likelihood that he will agree to transport?

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6 If the pt was instead found unresponsive & w/ labored, gasping resps a palpable pulse, how would you treat the patient?

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7 The pt does not resume breathing after a period of assisted ventilations. How should airway be managed?

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8 Does EMS need to clear aspirated water from this pt's airway?

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9 What untoward event should EMS be prepared for since the pt required assisted ventilations?

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## Heat Related Illness

1. Identify 4 processes in which the body may lose heat and describe each process.


2. Explain in your own words the pathophysiology of heat illnesses.

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3. What three factors determine the difference between heat exhaustion and heat stroke when assessing a pt with a heat emergency?

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4. In reviewing the thermoregulatory process in response to heat stress (found in handout) why would a paramedic need to evaluate the following:

Skin parameters	
Cardiac monitor	
VS including temperature	

5. What 8 symptoms indicate that a patient with a heat emergency may need medical intervention?


## **Allergic Reactions and Anaphylaxis**

1. What is the definition of an antigen when discussing allergic reactions?  

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2. What is the role of antibodies in the human body when it encounters an antigen?  

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3. What is the primary chemical released in the body as a result of an allergic reaction?  

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4. When this chemical is released, what three symptoms can occur resulting in an allergic reaction or anaphylaxis?  

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5. When EMS is going to perform a patient assessment, what is the highest initial priority?  

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6. How is the initial response to an antigen different than subsequent reactions (review in handout)?  

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7. What one assessment finding determines a patient is in anaphylaxis rather than a moderate systemic allergic reaction?  

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Thank you for completing this packet!

Submission can be made to your hospital EMS coordinator for grading and hours awarded.