

NAME: _____

NSP NUMBER: _____



2020 OUTDOOR EMERGENCY CARE (OEC) CYCLE A REFRESHER PROGRAM

INTRODUCTION

Welcome to the 2020 Outdoor Emergency Care (OEC) Cycle A Refresher Program. The purpose of this Outdoor Emergency Care Refresher Workbook 2020 OEC Cycle A is to provide you with a “snapshot” view of this year’s material so that you can be well-prepared for your refresher. To get the most out of this review, it is important to spend time reviewing the Outdoor Emergency Care Sixth Edition, focusing especially on the topics listed in this year’s Cycle A Refresher.

The Instructor of Record (IOR) for your refresher is the point of contact for any questions that may arise regarding attending an OEC refresher. Annual OEC refreshers are conducted at the patrol, section, region, or division levels. Contact your OEC administrator for refresher details.

2020 CYCLE A VISITOR'S COMPLETION FORM: **THIS PORTION IS FOR YOUR PATROL REPRESENTATIVE**

2020 CYCLE A OEC REFRESHER VISITOR'S COMPLETION FORM

Have this portion of the form signed by the Instructor of Record (IOR) at the refresher, **then return it to your NSP patrol representative. DO NOT SEND TO NSP.**

This verifies that you have attended and successfully completed all requirements for the 2020 OEC Refresher.

Please print.

OEC Technician Name: _____ NSP ID # _____

OEC Refresher Course Number: _____ Location of refresher _____

The above candidate successfully completed the requirements of the 2020 OEC Refresher and has been added to the electronic roster for course completion.

Instructor of Record (print name) _____

Instructor of Record Signature: _____

THIS PORTION IS FOR THE INSTRUCTOR OF RECORD (IOR)

2020 CYCLE A OEC REFRESHER VISITOR'S COMPLETION INFORMATION FOR THE IOR

VISITING OEC Technician: Prior to your arrival, fill out this portion and leave it with the Instructor of Record. **DO NOT SEND TO NSP.**

Please print.

OEC Technician Name: _____ NSP ID # _____

Certificate of completion (online) provided to IOR: YES NO

Email: _____ Phone: _____

OEC Technician's patrol/affiliation: _____

SKILL	CHAPTER (5)	CHANGE/MODIFY/DELETED	COMMENT 6TH EDITION
» Removing Contaminated Gloves	3	SAME	
» Bridge/BEAN Lift	5	SAME	
» Multiple Person Direct Ground Lift	5	SAME	
» Patient Assessment	7	CHANGED	In Workbook
» Pt. Assessment—Trauma Patient	7	MODIFIED	In Workbook
» Pt. Assessment—Medical Patient	7	MODIFIED	In Workbook
» Pt. Assessment—Assessing Pupils	7	SAME	
» Pt. Assessment—Assessing Pulse	7	SAME	
» Assessing Respiration Rate	7	SAME	
» Obtaining a Blood Pressure by Auscultation	7	SAME	
» Suctioning a Patient's Airway	9	SAME	
» Inserting a Nasopharyngeal Airway (NPA)	9	SAME	
» Inserting an Oropharyngeal Airway (OPA)	9	SAME	
» Oxygen Tank Set-up and Breakdown	9	SAME	
» Shock Management	10	MODIFIED	O2 titration
» Auscultation of Breath Sounds	13	SAME	
» Assisting with a Metered-Dose Inhaler	13	SAME	
» Administration with an Auto-Injector	14	SAME	
» RICES acronym Rest, Ice, Compression, Elevation, and Splint	18	CHANGED	OEC 6 Ch 19, RISE, Rest, Ice, Splint and Elevate
» Controlling Bleeding	18	CHANGED	OEC 6 Ch 19 Tourniquets and packing wounds
» Stabilizing an Impaled Object	18	SAME	OEC 6 Ch 19
» Figure Eight Application	20	DELETED	
» Splinting an Upper Extremity Injury	20	SAME	
» Blanket Roll Splint for Shoulder	20	SAME	
» Posterior S/C Dislocation Reduction	20	DELETED	
» Splinting a Lower Extremity Injury	20	SAME	
» Traction Splinting	20	MODIFIED	DIFFERENT DEVICES
» Boot Removal	20	SAME	
» Manual Spine Stabilization	21	CHANGED in 2018	2018 Refresher SMR protocol
» Head Trauma	21	Updated	New info, but not new skill.
» Sizing and Applying a Cervical Collar	21	SAME	
» Supine Patient: Log Roll onto a Long Spine Board	21	SAME	
» Short Board Immobilization	21	DELETED	
» Removing a Helmet from a Lying Patient	21	SAME	
» Immobilizing a Standing Patient	21	CHANGED in 2018	2018 Refresher SMR protocol
» Stabilizing of an Impaled Object in the Eye	22	SAME	
» Managing an Open Chest Wound	23	SAME	
» Pelvic Stabilization	24	MODIFIED	NO LOG ROLL
» Patient Restraint	33	SAME	
» Assisting with Normal Childbirth	34	SAME	
» Nerve Agent Administration	35	SAME	
» PULSE Oximetry-SpO2		NEW	Ch 7, 9, 13
» SALT triage		NEW	Ch 4
» Full-body vacuum mattress		NEW	Ch 21

WHAT'S NEW AND WHAT TO DO TO PREPARE FOR, AND COMPLETE, THIS YEAR'S REFRESHER:

1. Register on-line. Your Instructor of Record (IOR) will provide you with the course number and instructions on how to complete your registration. The registration process is the same for either refresher format.
2. Review/complete the material.
 - a. *Outdoor Emergency Care Refresher Workbook 2020 OEC Cycle A – must be completed;*
 - b. *Outdoor Emergency Care Sixth Edition;*
3. Update your NSP record.
 - a. Check your personal profile in the “Member Resources” section of www.nsp.org to ensure that your information is correct, or call the national office at 303-988-1111.
4. Complete the online refresher course (if using the hybrid format).
 - a. Access the online course by checking with the patrol where you are attending the refresher.
 - b. Follow the directions carefully and completely, and have your *Outdoor Emergency Care Sixth Edition* ready.
 - c. Print your certificate and take it with you to the refresher event. If your IOR will accept an electronic version, you may save your certificate as a PDF and email it to your IOR. If you do not have a certificate, you may not be allowed into the refresher.
5. Gather materials for the refresher event.
 - a. This completed *Outdoor Emergency Care Refresher Workbook 2020 OEC Cycle A*, AND the printed certificate (unless electronically sent to IOR) from the online portion (hybrid only).
 - b. Your current OEC, CPR, and NSP member cards. Your OEC card should have a blank space in the Cycle A section.
 - c. A fully stocked aid belt, vest, or pack, and any additional items required at the refresher you will attend.
 - d. Weather-appropriate clothing for both indoor and outdoor refresher activities.
6. Practice the skills that are identified in the *Outdoor Emergency Care Refresher Workbook 2020 OEC Cycle A*.
 - a. Review the skills check list on page 29 and 30 for the skills you will be reviewing during your refresher.
 - b. Practice your *Outdoor Emergency Care Sixth Edition* skills, so that you can feel more comfortable at your refresher event.
7. Attend your skills refresher event.
 - a. Check with your local patrol to ensure that you are completing the appropriate refresher format requirements (traditional vs. hybrid).
 - b. If you complete a refresher with another patrol, contact their IOR before you attend to ensure that you are preparing for the appropriate refresher format (traditional vs. hybrid). Be sure that you complete and the host IOR signs the *Visitors' Completion Form* available on page 2 of this workbook.

WHAT TO KNOW IN ORDER TO COMPLETE THIS YEAR'S REFRESHER

PROGRAM CONTENT: OBJECTIVES OVERVIEW (MAJOR TOPIC GROUPINGS) CYCLE A

- » *Rescue Basics (chapter 3)*
- » *Anatomy & Physiology (Cardiovascular, Respiratory and Integumentary systems) (chapter 6)*
- » *Patient Assessment (chapter 7)*
- » *Airway Management (chapter 9)*
- » *Altered Mental Status, Respiratory, Cardiovascular Emergencies (chapters 11, 13, 15)*
- » *Soft Tissue Injuries (chapter 19)*
- » *Musculoskeletal Injuries (chapter 20)*
- » *Spine, Brain and Nervous System Injuries (chapter 21)*
- » *Face, Eye and Neck Injuries (chapter 22)*
- » *Cold Related Emergencies (chapter 25)*
- » *Geriatric Emergencies (chapter 31)*
- » *Case Review*

PROGRAM PROCESS

The OEC Refresher Program is a standardized program that provides OEC technicians with an annual opportunity to update, renew, and demonstrate competency in specific OEC skills and knowledge. During each refresher cycle, OEC technicians review required material and demonstrate proficiency in all specified skills and information as outlined in this workbook. This refresher process is an excellent opportunity to hone and improve OEC skills.

Verification of OEC technician competency in fundamental knowledge, skills, and scenario management is the basis of the OEC Refresher Program. OEC technician certification is maintained by completing three consecutive annual refreshers. All NSP members must complete each of the refreshers (Cycles A, B and C) to maintain their OEC certification. The only NSP members exempt from this requirement are mountain hosts, registered candidate patrollers enrolled in an OEC course, members who complete a full OEC course after May 31 of the current year, and members registered as medical associates (M.D. or D.O.).

The OEC Refresher Program does not provide a means for a person with previous emergency care or medical training to challenge the OEC course. Additionally, the annual refresher covers a third of the OEC program curriculum requirements and does not meet the requirements for certification under the full OEC program.

An inactive NSP member returning to active status must hold a current OEC technician card, complete any missed cycle(s) that occurred during the inactive period, and pay dues for any missed seasons(s). If the OEC technician card expired during the inactive registration period, the member may need to retake an OEC course. Please refer to the National Ski Patrol Policies and Procedures manual for guidelines on registering as an NSP member and other OEC technician refresher requirements.

Directions to find a copy of the current NSP Policies and Procedures (P and P) document:

Go to the NSP website (NSP.org) to log in. Click ‘Visit the NSP site’. Locate blue box sign in/Create Account. Once you are signed in locate the Member Resources drop-down tab, select Governance tab. Download the 2020 NSP P and P. If you have problems call the national office at 303-988-1111 or email nsp.org.

THE REFRESHER

For each refresher, OEC Technicians must complete all of the following components:

- » **the didactic, or information portion (either online or in person);**
- » **the *Outdoor Emergency Care Refresher Workbook 2020 OEC Cycle A*, and,**
- » **the skills component at a refresher event.**

In order to receive credit for this refresher cycle, OEC technicians must successfully complete one of the following refresher types:

» **The “traditional” refresher format consists of two steps:**

1. The OEC technician reviews and completes the assignments, skills, and cases in this *Outdoor Emergency Care Refresher Workbook 2020 OEC Cycle A*; and,
2. They complete a knowledge and skill-based refresher event, where they will demonstrate their OEC skills and discuss the cases they have reviewed.

» **The “hybrid” refresher format consists of three steps. Please note that the didactic portion of the objectives in the hybrid option is split between the Refresher Workbook and the online component.**

1. The OEC technician reviews and completes the assignments, skills, and cases in this *Outdoor Emergency Care Refresher Workbook 2020 OEC Cycle A*.
2. They complete the online refresher exercise that reviews the knowledge-based portion of the refresher.
3. They complete a skill-based refresher event, where they will demonstrate their OEC skills and discuss the cases they have reviewed.

OTHER PROGRAM REQUIREMENTS

CPR for active NSP members: Active NSP members must ensure that they maintain a current professional rescuer level CPR certification and demonstrate their CPR skills annually to an agency-approved certified CPR instructor, regardless of the requirements of the certifying agency or the expiration date on their card. This requirement is not meant to be part of the annual OEC refresher. For a complete list of the NSP-approved CPR certifying agencies, please see the *National Ski Patrol Policies and Procedures*.

Local patrol training, such as local patrol requirements, area needs, lift evacuation, CPR, AED, and other on-hill/on-trail training, is arranged through your home patrol and is NOT officially part of the OEC refresher process. The NSP is not responsible for the content, instruction, or scheduling of this training, so it is important to communicate with your local patrol regarding these requirements.

INSTRUCTIONS FOR USING YOUR OUTDOOR EMERGENCY CARE REFRESHER WORKBOOK 2019 OEC CYCLE C

To use this year's Refresher Workbook, begin by reviewing the skills objectives that will be covered in each module, which are listed at the top, below the module title. Objectives are identified by the chapter, and the order in which they are found in that chapter. Example 3-10, "Describe and demonstrate how to ensure scene safety" tells you the objective can be found in chapter 3, and is the 10th objective. You then go through chapter three until you locate that particular objective.

Questions that must be answered will have the page numbers listed for reference. Corresponding Skill Guides, when cited, also have page numbers for your reference. Key word searches for e-reader users are shown in **bold italics**. For those who are completing a traditional refresher (NO on-line portion): In an effort to help you prepare for your refresher event, we have included a list of the knowledge objectives that you will be reviewing.

2020 REFRESHER CYCLE A KNOWLEDGE OBJECTIVES

Rescue Basics chapter 3

- 3-1 Describe the steps an OEC technician can take to be prepared when responding to a **request for assistance**.
- 3-2 Describe how layering clothing can **help preserve body heat**.
- 3-3 Describe the five **modes of disease transmission**.
- 3-4 Define the following terms:
- **Pathogen**
 - **Standard precautions**
 - **Body substance isolation (BSI)**
 - **Hazardous material**
- 3-5 List common **personal protective equipment** used by OEC technicians
- 3-6 Describe the **chain of custody**.

Anatomy and Physiology chapter 6

- 6-3 Describe the **anatomy** (structure) and **physiology** (functioning) of the **Respiratory, Cardiovascular, and Integumentary body systems**.
- 6-4 Explain how the blood flows through the **heart**
- 6-5 Explain how **tissue** in the body gets **oxygen** and **nourishment**.

Patient Assessment chapter 7

- 7-2 Describe the importance of controlling **major bleeding** as a first step during the **primary patient assessment**.
- 7-3 Describe the first steps you take when you encounter a patient who is **responsive**
- 7-5 Describe the difference between a **sign** and a **symptom**
- 7-6 List the **normal vital signs** for an infant, child and adult

Airway Management chapter 9

- 9-1 Describe the function of the **epiglottis**
- 9-2 Describe the **mechanism of breathing**

- 9-3 Describe how to manually open the **airway**
- 9-4 Describe the proper way to **clear an airway**
- 9-6 Describe the function of the **oropharyngeal and nasopharyngeal airways**
- 9-8 Explain the tips for **safe use of oxygen**
- 9-12 Explain what a **pulse-oximeter** is and how it is used.
- 9-13 Explain **gastric distention** and how to avoid it

Shock chapter 10

- 10-1 Define **shock**.
- 10-2 Describe the three primary **causes of shock**
- 10-3 Describe how the **body compensates for shock**
- 10-4 Define the **three stages of shock**
- 10-5 List the **four major types of shock**
- 10-6 List the classic **signs and symptoms of shock**

Altered Mental Status chapter 11

- 11-1 Define **altered mental status**
- 11-2 List nine **causes of Altered mental status** using the mnemonic **AEIOU-TIPS**
- 11-3 Describe the management of a **transient ischemic attack**
- 11-4 List the signs and symptoms of the following medical conditions: **focal seizure, generalized seizure, hypoglycemia, hyperglycemia**.
- 11-5 Describe how to assess a patient with **altered mental status**.
- 11-6 Define **FAST-ED** and explain how this can be used to identify someone who is having a **stroke**.

Respiratory Emergencies chapter 13

- 13-2 Identify the **primary muscle of ventilation**
- 13-2 Describe the **physiology of breathing**
- 13-3 Describe characteristics of **abnormal breathing**
- 13-4 List the **normal breathing rates** for individuals in the following age groups: infant, child, adult
- 13-5 Identify the most common cause of **airway obstruction**
- 13-6 List the signs and symptoms of **acute respiratory distress**

- 13-7 List the signs and symptoms of the following respiratory emergencies; *asthma, COPD, spontaneous pneumothorax, pulmonary embolism, hyperventilation, pulmonary edema*

Cardiovascular Emergencies chapter 15

- 15-1 List the signs and symptoms for: *acute myocardial infarction, aortic aneurysm, congestive heart failure, and pericardial tamponade.*
- 15-2 List the *arrhythmias* associated with *sudden cardiac death.*
- 15-4 Give the indications and contraindications of *aspirin* and *nitroglycerin* therapy.
- 15-7 Explain what an *anticoagulant* is

Soft Tissue Injuries chapter 19

- 19-1 List the four functions of the *skin.*
- 19-2 List the *layers of the skin.*
- 19-3 Explain the difference between *arterial and venous bleeding.*
- 19-4 Explain how to assess a *soft-tissue injury.*
- 19-11 Explain the different methods to *control bleeding*, including application of a *tourniquet.*
- 19-12 Explain the difference between a *bandage* and a *dressing.*

Musculoskeletal injuries chapter 20

- 20-1 Identify the following terms; *cartilage, joints, muscles, synovium, tendons, ligaments*
- 20-1.4 M/S trauma to *shoulder, clavicle, humerus, elbow, and wrist*
- 20-1.3 Describe the difference between a *sprain and a strain.*
- 20-1.4 Describe the general *assessment* of M/S injuries
- 20-1.5 List the *signs and symptoms* of *sprains, strains, ruptured tendons, dislocations, and fractures*
- 20-3.1 Explain the general management of a patient with a *musculoskeletal injury.*
- 20-3.3 Explain the difference between *traction and tension.*
- 20-3.4 Discuss the general principles of *splinting.*

Spine, Brain Nervous System Injuries chapter 21

- 21-1 Identify the anatomical components of the *central nervous system*
- 21-2 Define *traumatic brain injury*
- 21-3 Describe *traumatic injuries involving the spine*
- 21-4 Describe the *signs and symptoms of spinal injuries*
- 21-5 Describe how to properly *assess a patient with a suspected brain and spinal cord injury*

- 21-6 List the signs and symptom of *traumatic brain injury*
- Review the 2018 NSP spinal motion restriction protocol

Face, Eye, and Neck Injuries chapter 22

- 22-1 Describe the *function of the eye*
- 22-2 Describe the assessment and management of *ear injuries*
- 22-4 Identify the important *structures of the anterior neck*
- 22-5 List the signs and symptoms of *traumatic injury emergencies of the neck and upper airway*
- 22-6 Describe the function of the *lacrimal glands*
- 22-7 Describe the management of a *dental injury*
- 22-8 List the *signs and symptoms of emergent injuries to the face, eyes, and neck*

Cold-Related Emergencies chapter 25

- 25-1 Explain the *wind chill index* and how it applies to temperature
- 25-2 List the *signs and symptoms of frostbite and frostnip*
- 25-3 Explain the *two types of hypothermia*
- 25-4 Define *after drop*
- 25-5 Describe the *assessment of a patient with cold injuries*
- 25-6 Describe the *four categories of cold exposure*
- 25-8 Describe the *emergency care of an avalanche victim.*

Geriatric Emergencies chapter 31

- 31-1 Describe *physical changes that occur to six body systems with aging.*
- 31-2 Describe effective methods for *communicating with geriatric patients.*
- 31-3 Describe the effects of the following illnesses and diseases on *geriatric patients:*
- *Cardiovascular*
 - *Respiratory disease*
 - *Neurologic diseases*
 - *Gastrointestinal diseases*
 - *Altered mental status*
- 31-4 Describe how *medications can affect the results of an assessment of geriatric patients.*
- 31-5 Explain why the following *traumatic conditions/injuries are different in geriatric patients:*
- *Falls,*
 - *Hip and pelvic fractures,*
 - *Traumatic brain injury, and*
 - *Cervical spine injury.*
- 31-6 Explain how the *management of geriatric patients* is different than that of other patients.

RESCUE BASICS CHAPTER 3

Demonstrate how to remove *contaminated gloves*.



MOVING, LIFTING AND TRANSPORTING PATIENTS CHAPTER 5

NEW: Pelvic fracture update: DO NOT log roll. For more information, refer to OEC 6 

PATIENT ASSESSMENT CHAPTER 7

NEW: Explain and Demonstrate the following five parts of *patient assessment* 

NEW: Demonstrate where you can take *five pulses* in five different locations on the body. 

PATIENT ASSESSMENT FLOW CHART

Scene Size-up:

- » Ensure scene safety
- » Determine the MOI or NOI
- » Take standard precautions
- » Determine the number of patients
- » Consider additional resources

Primary Patient Assessment:

- » Form a general impression
- » Control life-threatening bleeding
- » Assess level of responsiveness
- » Rapidly assess airway, breathing, circulation, disability
- » Obtain chief complaint Update dispatch of needs

History Taking:

- » Investigate the chief complaint using SAMPLE
- » Assess pain and other complaints using OPQRST

Secondary Patient Assessment:

- » Perform a physical exam
- » Assess vital signs

Reassessment:

- » Check effectiveness of treatment
- » Repeat primary patient assessment and reassess vital signs
- » Treat changes in patient's condition
- » Prepare to hand off to a higher level of care

There are five places where an artery is close to the skin, allowing a pulse to be taken easily. The carotid, the brachial, the radial, the femoral, and the dorsalis pedis.



OXYGEN AND AIRWAY MANAGEMENT CHAPTER 9

Describe and demonstrate the proper way to **clear an airway** using **suction**

Demonstrate the sizing and placement of an **oropharyngeal and nasopharyngeal airway**

Demonstrate how to setup and breakdown an **oxygen tank** with accompanying **delivery devices**.
(**Nasal cannula and non-rebreather mask**)

NEW: Explain what a **pulse-oximeter** is and demonstrate how it is used. 



Measuring a suction catheter: wearing gloves, measure the suction catheter from the corner of the mouth to the ear lobe on your patient.

Size, Lubricate, Insert and Check (SLIC) a nasopharyngeal airway



Size, Insert and Check (SIC) an oropharyngeal airway.



Oxygen tank set up



Assess oxygen saturation (SpO₂) using a **pulse oximeter**.

Follow manufacturer's instructions. Place probe on finger, turn on, and read SpO₂



SPECIAL NOTE: USE OF OXYGEN: ADJUST APPROPRIATELY WITH A PULSE OXIMETER.

Oxygen needs to be given appropriately. Recent medical evidence shows giving too much O₂ for certain medical conditions causes tissues to be exposed to an excess supply of oxygen, called hyperoxia, which is not good for the patient. For example, too much O₂ even for a short time period when given to COPD patients or some patients with stroke, cardiac conditions, and traumatic brain injury may be harmful. The chemistry of the blood changes and the response of the neurologic system and brain from too much oxygen can alter breathing inappropriately and cause other bad consequences in the tissues making the patient worse. You should no longer just “give oxygen.” For example, putting oxygen on a *healthy* 20-year old male with an isolated wrist fracture is not necessary.

Although no definitive threshold for a normal value exists, an SpO₂ between 94 and 99% is accepted as healthy. Readings on pulse oximeters below 85% are less accurate, but certainly indicate profound hypoxemia (not enough oxygen) and the need for oxygen therapy. When providing oxygen follow these recommendations.

1. In the field in cold weather when a person appears cyanotic or has an elevated breathing rate and/or heart rate, and clinically needs oxygen: put on non-rebreather mask and turn up oxygen to 15 liters per minute. Adjust the flow to keep non-rebreather mask half full when the patient inhales. In cold weather, using a pulse oximeter in the field is difficult due to cold fingers, inappropriate readings, and difficulty in placement (removing glove). Using oxygen for a very short term like this is better than no oxygen for the appropriate patient. A pulse oximeter when available may be used outside in warm weather, or in a warm building.
2. Once in an aid room and the patient is warm, take a reading using a pulse oximeter if available. If SpO₂ is 100%, adjust the flow down continuously watching the pulse oximeter, so the SpO₂ reading is between 94 and 99%. If it goes below 94%, immediately adjust the flow upwards, and then keep the pulse oximeter reading between 94 and 99% SpO₂. After adjustment, it may take up to one minute to get an appropriate reading on the pulse ox. This is especially important if there could be a long time waiting for the appropriate transport.
3. If the SpO₂ remains between 94 and 99% with the flow adjusted way down, take the mask off. If you find the SpO₂ on room air with the mask off is between 94 and 99%, leave the mask off. Otherwise adjust the flow to keep the SpO₂ between 94 and 99%.
4. For patients who you think are hyperventilating, use the pulse ox to obtain a reading. If the device reads 100%, reassurance and getting them to breathe slower is best. A paper bag is no longer used. Oxygen is not needed, unless the SpO₂ reading is less than 94%.
5. Always look at the patient clinically. If the patient is having difficulty breathing or appears cyanotic, use your clinical skills. Rarely, a pulse ox can give a false reading (fingernail polish, cold fingers and carbon monoxide can give false or no readings).
6. Remember, a sick patient's condition may change, and oxygen may be necessary later during your care, so watch the pulse oximeter for changes, just as you take blood pressure, heart rate, and respirations. Recheck every 5 minutes for critical patients and every 15 minutes for stable patients.
7. *Understand that not enough oxygen (hypoxemia) is much worse than too much oxygen (oxygen toxicity) in a patient with breathing problems: when in doubt, or unable to measure oxygen saturation reliably, supplemental oxygen should be given.*

SHOCK CHAPTER 10

Describe and demonstrate the management of *shock*.



Keep patient warm (blanket), administer oxygen, transport rapidly

MEDICAL EMERGENCIES: ALTERED MENTAL STATUS CHAPTER 11, RESPIRATORY CHAPTER 13, CARDIOVASCULAR CHAPTER 15

Describe and demonstrate the management of a *transient ischemic attack*.

Define **FAST-ED** and explain how this can be used to identify someone who is having a stroke. 

Describe and demonstrate the management of the two types of stroke:

- a. *Ischemic stroke*
- b. *Hemorrhagic stroke*



FAST-ED

- F** Facial droop
- A** Arm weakness
- S** Speech
- T** Time to call_
- E** Eye deviation
- D** Denial/neglect

Treatment of Stroke: Apply oxygen, protect the airway, note the time when patient last appeared normal, and rapid transport.



- » Describe and demonstrate how to assess a patient who is having *difficulty breathing*.
- » Describe and demonstrate the appropriate management of a patient in *respiratory distress*.
- » Demonstrate how to assist the patient with an *inhaler*.

Assessing Lung sounds and Management of respiratory distress:

Normal breath sounds are regular, relatively quiet and equal for the two lungs.



When assisting with inhalers and all medications, verify the following: Right patient, Right medication, Right dose, Right route, and Right time. Check expiration date. Document the time you assisted with inhaler or medication and if it helped the patient.



- » Demonstrate how to assess and treat a patient with a *cardiovascular emergency*.
- » Describe and demonstrate assisting with administration of *nitroglycerin and aspirin* in patients with chest pain:



Assisting with Nitroglycerin: Nitroglycerin should be given only to a patient with chest pain who is awake and responsive. It should **NOT** be given to patients if any of the following contraindications pertain:

- » the nitroglycerin is expired
- » the nitro is not prescribed for that patient
- » systolic blood pressure is less than 100 mmHg
- » the patient has taken three doses of nitroglycerin for this episode of chest pain
- » the patient has used a medication for erectile dysfunction (e.g., Viagra®, Levitra®, Cialis®) within the past 24 hours
- » chest pain is due to trauma (is not cardiac in origin)

Nitroglycerin can come in a spray or sublingual tablets and is used for angina pectoris. To assist patients in taking their own nitroglycerin tablets, follow these steps:



1. Check systolic blood pressure to ensure it is over 100 mmHg.
2. Check to make sure the medication is prescribed for this patient and that it has not expired.
3. Put on your disposable gloves, and then remove one tablet from the bottle and place the tablet in the patient's hand.
4. Instruct the patient to place the medication under his tongue and to allow it to dissolve completely. Tell the patient not to chew or swallow the tablet. If necessary, assist the patient by putting the medication in place once the patient has lifted his tongue.

To assist the patient in taking his own nitroglycerin sublingual spray, follow these steps:

1. Check systolic blood pressure to ensure it is over 100 mmHg.
2. Check the medication to ensure it is prescribed for the patient and that it has not expired.
3. Do NOT shake the metered dose spray.
4. Instruct the patient to lift his tongue.
5. Apply one spray beneath the patient's tongue.

If the patient is still experiencing chest pain, you may assist with two more doses of nitroglycerin, for a total of three doses, at 5-minute intervals. This total of three doses includes any nitroglycerin the patient may have taken immediately before your arrival on scene. Recheck the patient's blood pressure after each dose. If systolic pressure is less than 100 mmHg, do not give more nitroglycerin.

NEW: ASSISTING WITH ASPIRIN



To assist a patient in taking aspirin, follow these steps:

1. **Confirm that the patient is not allergic to aspirin.**
2. **Confirm there is no obvious GI bleeding (no vomiting of blood or blood in stool).**
3. Select the proper dosage of aspirin. Use either one adult buffered aspirin (325 mg per tablet) or four chewable baby aspirin (81 mg per tablet for total of 324 mg). The baby aspirin are preferred and easier for a patient to chew and swallow.
4. Check the expiration date of the aspirin; do not use the medication if it has expired.
5. Instruct the patient to chew the aspirin before swallowing it.
6. A sip of water may help get the aspirin into the stomach.

CASE REVIEWS: 2020 REFRESHER CYCLE "A", INTRODUCING OEC 6E

For the first two case reviews answer the following questions in detail:

- » What PPE equipment will you need and if you don't have it readily available, where would you get it and how long are you willing to wait to help the injured person?
- » What method are you going to use to stop the bleeding?
- » Review your areas procedure for getting the necessary equipment to you (if you don't personally carry it).
- » If you applied a tourniquet, where is the proper placement of the tourniquet?
- » If a tourniquet is used, but bleeding is still present, what is your next step?
- » List all the methods that will be used for transporting the patient from the accident scene to the hospital.
- » After the individual is taken care of, describe your ski area's procedures for cleaning up the contaminated area. Include cleaning the accident site, snow, toboggan, clothes, transportation devices, Patrol Room and all equipment. Include any vehicle that may be used for transport. Be specific on this i.e.: if bleach is used where is it located? What is the correct mixture etc.?

FIRST SCENARIO

Tim and Kathy are snowboarding at your area. Kathy gets her board on and goes 50 yards down the run and falls. Tim, after getting his bindings on, races after her and notices she has her knees and hands on the ground. Wanting to have some fun, Tim plans on spraying her with snow, but loses control as he approaches her. Upon losing control Tim boards over both of Kathy's legs, cutting Kathy's skin and calf muscles down to the bone on both legs. Kathy is in a great deal of pain and blood is flowing freely. You are the first Patroller on the scene and try to stop the bleeding with direct pressure, however your efforts are ineffective. What other options are available to you to stop the bleeding?

SECOND SCENARIO

The approach to your ski area involves driving down a steep curvy hill to get to the base facilities. The road is owned and maintained by the ski area and the Ski Patrol assists with any accidents on it. On a bright spring day two teenagers are speeding down the hill in vehicle 1, come around a curve and hit vehicle 2, carrying two individuals on the way up. Arriving upon the scene (assume the scene is safe and all patients are responsive) you notice the occupants of vehicle 1 have only minor injuries, and are waiting on the side of the road for the police to arrive.

The occupants of vehicle 2 are the most seriously injured. The driver of the vehicle, who was not wearing a seat belt, has multiple injuries from slamming head first into the windshield, with his eyes wide open. The driver's left eye is red and swollen, while the right eye has shards of glass imbedded in it. The driver also has a deep laceration, which is still bleeding, running down the right side of his head and face. You notice this wound in the cheek area goes completely through and into the mouth. Describe how would you treat the eye injury, and what steps you will take to stop the bleeding and treat the laceration.

- » The passenger of vehicle 2 sustained a severe cut and penetrating wound to his abdominal region. In a panic he pulled the offending object out, causing severe bleeding. Direct pressure does not stem the blood flow. What other techniques are you going to use to try and stop the bleeding?

TRAUMA: SOFT TISSUE INJURIES CHAPTER 19:

NEW: TREATING CLOSED SOFT-TISSUE INJURIES (OEC SKILL 19-7)

- R-REST:** Cease activity or the use of the affected limb. Inactivity helps to reduce pain.
- I-ICE:** Apply cold packs or ice for pain control. Use only for short intervals.
- S-SPLINT:** Immobilize the injured part using either a commercial splint or one fabricated from available materials. Splinting helps decrease pain.
- E-ELEVATE:** Elevate the injured area above heart level to reduce pain.

BLEEDING CONTROL:

Explain and demonstrate the different methods to **control bleeding**, including application of a **tourniquet**.



Direct pressure is always the first thing to try when attempting to control bleeding.

Packing the wound is the treatment of choice when you are unable to use a tourniquet

Tourniquets have improved and do not necessarily cause the loss of the limb distal to the tourniquet



Apply direct pressure over the wound with a dry sterile dressing



If direct pressure with a pressure dressing does not control the bleeding, apply a tourniquet above the level of the bleeding

NEW: STOP THE BLEED

STOP THE BLEED initiative: for classes near you contact <https://www.stopthebleed.org/> 

**KEY POINT:
STOP THE BLEED**

The OEC technician must immediately decide whether bleeding is minor or life threatening. According to the Stop the Bleed campaign by the American College of **Stop the Bleed** Surgeons, life-threatening bleeding is indicated by any of the following:

- » Blood that is spurting out of the wound
- » Blood that won't stop coming out of the wound
- » Blood that is pooling on the ground
- » Clothing that is soaked with blood
- » Bandages that are soaked with blood
- » Loss of all or part of an arm or leg
- » Serious bleeding in a patient who is now confused or unconscious

**SUBUNGUAL HEMATOMA****Relieving the Pressure of a Subungual Hematoma**

In the rare instance **when emergency care is many hours away**, it may become necessary to relieve the pressure of a subungual hematoma. To decompress this type of painful injury, follow these steps:

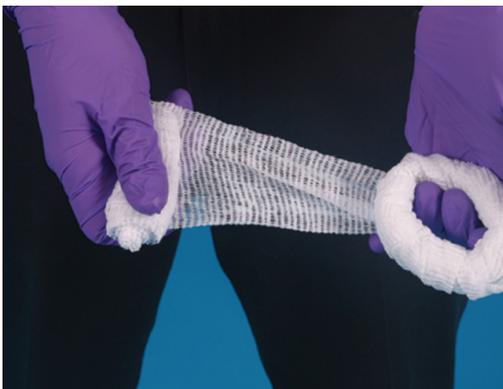
1. Gently wash the fingertip. Heat a paper clip or the blunted end of a needle or pin with a lighter, a match, or an open flame until the metal is red hot.
2. Touch the hot tip of the paper clip in the center of the darkened nail bed and gently push down to allow the paper clip to burn through the nail only. The trapped blood will suddenly escape as the pressure is released, providing immediate relief from severe pain.
3. Immediately remove the paper clip to prevent it from penetrating the nail bed.
4. Dress and bandage the wound.

FACE, EYE AND NECK TRAUMA CHAPTER 22:

Describe and demonstrate the management of a patient with a *penetrating injury to the eyeball*.

Describe and demonstrate how to *assess face, and eye injuries*.

Describe and demonstrate the proper *care of a face and eye injury*.



1. When an object has penetrated an eye, do not remove the object. Place padding around the eye, using a roll of gauze to create a "doughnut." An alternative is to place a paper cup over the eye.
2. Use a roller bandage to secure the doughnut or cup in place.

MUSCULOSKELETAL INJURIES CHAPTER 20:

Describe and demonstrate how to *assess*; and demonstrate how to care for the following: (choose three)

- » *Shoulder, scapula*
- » *Clavicle*
- » *Humerus*
- » *Elbow*
- » *Forearm*
- » *Wrist*

NEW: Demonstrate how to care for an injured extremity when there is *neurovascular compromise*. 

WRIST, HAND OR FOREARM INJURY: APPLY A SPLINT AND SLING AND SWATHE



ELBOW

CMS Deficit?? If during your assessment of a deformed **elbow injury** you determine the limb distal to the injury has a CMS deficit, it may be appropriate to gently attempt alignment to improve blood supply or neurologic function to the distal arm by restoring normal anatomic appearance of the elbow. Always follow local protocol, preferably under medical direction, and **do not attempt alignment if final definitive care by a physician is less than 2 hours away.** The most common position of the elbow that restores CMS is extended just past 90 degrees. Have a finger where the radial pulse is located during gentle elbow extension, and when it returns, splint the arm in this position.



OEC technicians must be gentle and careful throughout this procedure because rough handling or excessive manipulation of the elbow joint may worsen neurologic or vascular compromise. If the pulse is restored after a single realignment attempt, splint the limb in the position where the distal pulse was restored. If no pulse returns after a single attempt, splint the arm in the position most comfortable to the patient. If possible, place the arm in a modified sling and swathe. Rapidly transport. If the elbow is straightened too much for a sling, secure the arm to the body with swathes.

HUMERUS:



Once splint is secured, apply a sling and a wide swath

Another option for splinting a humerus fracture is to use a sugar tong SAM Splint:

1. Use a sugar tong SAM Splint from the armpit around the elbow and back up the outside of the humerus to the top of the shoulder. Use a sling and swathe with this method.
2. If the patient will not let you bend the elbow, a long rigid splint from the shoulder to the wrist can be applied. The arm is then strapped to the body.

CLAVICLE: SLING AND SWATHE



SHOULDER: BLANKET ROLL



Remember: Checking *Circulation, Motion and Sensation* before and after all splinting is a must.

NEW: Pelvic fractures, do not log roll. Refer to OEC 6 for the latest information. 

SPINE, BRAIN AND NERVOUS SYSTEM INJURIES AND SPINAL MOTION RESTRICTION CHAPTER 21:

Demonstrate how to properly care for a patient with a **brain and spinal cord injury**.

Demonstrate how to maintain proper **spinal alignment** while placing a patient onto a long backboard from the supine position.

Explain and demonstrate how to perform **neutral head alignment**.

Demonstrate how to size and apply a **cervical collar**.

Demonstrate how to perform an **axial drag**.

Demonstrate how to secure a patient to a **long backboard**.

NEW: Demonstrate how to place a patient on a **full-body vacuum mattress**. 

Note: TBI is an acronym for Traumatic Brain Injury

Care of patients with serious head or spine injuries consists of the following steps:

1. Correct any threats to life (ABCDs) that may be present while protecting the spine, especially the C-spine. Perform CPR, if necessary. Control severe external bleeding and maintain blood flow to body tissues. Establish and maintain an adequate airway using the jaw-thrust maneuver. If the patient is unresponsive and has no gag reflex, insert an oropharyngeal airway or nasopharyngeal airway. Suction to keep the airway clear as needed.
2. Provide supplemental oxygen when needed. If the patient is breathing, administer oxygen via nonrebreather mask at 15 LPM, and then titrate to keep the nonrebreather mask half full. If the patient is not breathing or is breathing less than eight breaths per minute, ventilate the patient using a bag-valve mask, watching each breath so the chest rises normally, using supplemental oxygen at a normal respiratory rate. Use a pulse oximeter keeping the oxygen saturation greater than or equal to 94%. Hyperventilation with oxygen (oxygen saturation of 100%) of a patient with a TBI is not recommended. Hyperventilation can in fact be detrimental to the patient.
3. Protect the spine until assessment for spinal motion restriction has been completed. Use manual stabilization of the cervical spine, until spinal evaluation is done. If spinal motion restriction is needed, apply a collar, padding and spine board, or vacuum mattress.
4. If time permits, treat other minor injuries. In severe brain or spinal injuries, transport as soon as possible. If CSF is leaking from the ears or nose, do not attempt to stop the flow.
5. Transport the patient with the head uphill to prevent worsening of an intracranial head injury.
6. Continually monitor the patient. Check the patient's level of responsiveness and other vital signs every 5 minutes and record any changes later in the PCR.
7. Transport the patient to a definitive-care facility as soon as possible.

KEY POINT: OXYGEN LEVEL FOR A TBI

Hyperventilation with oxygen of a patient with a TBI is *not recommended*. Use a pulse oximeter and titrate keeping the oxygen saturation between 94 and 99%.

Define **Second Impact Syndrome** and describe how to prevent it.

OEC SKILL 21-1 PERFORMING NEUTRAL HEAD ALIGNMENT



1. Kneel next to the patient’s head, either to the side or at the top of the head. Place your hands on either side of the patient’s head, with the palms adjacent to the ears and the fingers supporting the jaw and the back of the head.
2. Gently move the head so that the patient’s eyes are looking forward and the patient’s nose and chin are aligned with the sternum. Never force the head into alignment. If the patient has muscle spasms in the neck or if your movement causes increased pain in the neck or numbness, tingling, or weakness in the extremities; or if alignment compromises airway or breathing, stop what you are doing and stabilize the patient in the position found.
3. Continue to manually support the head while your partner applies a cervical collar around the neck. If the head cannot be moved into alignment, you may have to stabilize the head using a blanket roll. Do not allow the patient to move.

MEASURE AND APPLY C-COLLAR ACCORDING TO MANUFACTURER’S INSTRUCTIONS.



PERFORMING THE AXIAL DRAG:



1. Rescuer 1 instructs Rescuers 2, 3, and 4 to slide the patient toward the foot of the backboard (toward the rescuers) on the count of three. Rescuers hands should be at hip area pulling the patient down to the foot of board.
2. Rescuer 1 instructs rescuers to slide the patient into the proper position on the count of three. Pulling the patient up toward the head of the long backboard with rescuers hands under the armpits on each side and moving simultaneously.

SECURING THE PATIENT TO A BACK BOARD



FULL BODY VACUUM MATTRESS

NEW: Placing a Patient on a Large Vacuum Mattress (Splint)

To get the patient onto the vacuum mattress the same method is used for a long backboard. The patient is logrolled onto their side, and the deflated mat is placed flat right next to the patient. The patient is kept in axial alignment as they are rolled onto the mattress. Then, with axial drags, the patient is centered on the mat. No straps are needed. The mat is rolled up on the sides, around the patient from head to toe, and the air is sucked out, forming a rigid construct around the patient, and providing spinal motion restriction. To place a patient on a full-body vacuum mattress, follow the steps in **OEC Skill 21-5**.

OEC Skill 21-5 Placing a Patient on a Full-body Vacuum Mattress



1 Place the mattress on a flat surface near the patient, with the head end of the mattress at the patient's head.

2 Allow air to enter the mattress. Keep the valve stem open until the mattress is soft pliable.



3 Smooth the mattress. Remove any sharp or bulky items tht may damage the mattress.



4 Connect th pump to the mattress.



5 Determine which method you will use to move the patient onto the mattress. If you will use the log roll method, evacuate the mattress until it is partially rigid (note: this step is not needed if using the scoop stretcher method). The surface should be smooth and the beads should be spread out as evenly as possible.



6 If using a scoop stretcher, you do not need to partially evacuate the mattress at this stage.



7 Move the patient onto the vacuum mattress using the method you determined during the previous step. Maintain spinal alignment.



8 If the vacuum mattress is partially rigid, open the valve to allow air to enter. Keep the valve open until the mattress is pliable.



9 Conform the mattress to each side of the patient's head, close to the shoulders but not the top of the head. Continue to hold these "head blocks" that you have formed, and have a second person hold the sides of the mattress up to the patient's hips until the mattress is evacuated of air completely.



10 Secure the patient's chest, hips, and legs.



11 Secure the patient's head. Pad any voids at the top of the shoulders.



12 Confirm that the patient is as comfortable as possible, then evacuate the remaining air to achieve rigid stabilization.



13 Disconnect the vacuum pump and ensure that the valve is closed or secured.



14 Reassess and adjust the straps around the chest, hips, and legs.



15 Check the patient's neurovascular status and re-check all straps prior to lifting or moving the patient.

NOTE: The whole body vacuum mattress when applied correctly does not require a cervical collar.

SMR, SPINAL MOTION RESTRICTION ALGORITHM

Determine Mechanism of Injury

- Falling from a aerial ski lift
- Any burial (eg, avalanche or tree well)
- Any fall greater than a height of 3 feet, elderly adult fall from standing or anyone falling down 5 or more stairs
- A pedestrian or bicyclist struck by a motor vehicle
- A motor vehicle collision that includes:
 - Death of one or more occupants
 - The patient was unrestrained (no seat belt or airbag to restrain) and/or was ejected from the vehicle
 - The vehicle was a bicycle, a motorcycle, a snowmobile, or an all-terrain vehicle (ATV), especially if no helmet was worn
- A skier/snowboarder/cyclist who has collided with another skier/snowboarder/cyclist or a fixed object such as a tree or lift tower
- High voltage electrical shock or lightning strike



Reliability of Assessment

- Is the patient alert and oriented?
- Responding normally to verbal commands?
- Can they respond appropriately when asked about sensory stimulus?
- Can you rule out all signs of intoxication with alcohol or drugs or any altered mental status?
- Can they respond appropriately to questions and your exam?
- Can the patient focus on your questions rather than a distracting injury? (ie, severe pain from a fracture)
- Can a younger pediatric patient answer your questions appropriately?

If you answer no to any of these:

Use Spinal Motion Restriction (long backboard with cervical collar or large vacuum mattress)

Exam Findings

- Deformity or steo-off of spinal alignment
- Midline tenderness over the spine, not flank or rib tenderness
- Loss of sensation (numbness) or motor function distal to possible injury
- Flexor or extensor posturing to painful stimuli
- Skull irregularities or evidence of trauma
- Cerebral spinal fluid leak from nose or ears
- Sacral or posterior pelvic pain when side to side compression is performed

If the exam reveals any of these:

THIRD CASE REVIEW SCENARIO: SMR

You and your significant other Anne, both ski patrollers from out of state, are on a long-deserved ski vacation at your favorite Utah ski resort. Nearing 15:00 hours on the first day you stop and look at one of the many beautiful houses lining the narrow run heading towards the base lodge. Anne starts to cut across the path to join you. At this time a skier behind the two of you is trying to figure out what you are looking at and runs into Anne at full speed. In the ensuing yard sale, the first skier tumbles twenty-five yards downhill, but is starting to get up and is moving. You yell and ask if he is ok. The reply is yes. Shortly he will ski away. You then concentrate on Anne who is temporarily motionless on the snow. Inquiring how she is feeling, she answers - while pushing herself into a sitting position- that her back and right thumb hurt. After securing the scene and calling the Patrol you do an assessment of her back. Upon palpation she states she has tenderness on the right side of her back and muscle stiffness in her neck. Her tenderness does not appear directly along her spine. She has good CMS, and is complaining about her thumb. After checking her back, you assess her thumb, which is quite swollen, tender, and at a unique angle. When the Ski Patrol arrive, based on your knowledge, how would you like them to treat Anne? Use a (SMR) Spinal Motion Restriction device? C-Collar? What is the best way to transport her or do you encourage her to ski down? What would you do about the Right thumb?

Arriving on the scene as the responding Patroller how would you treat this patient? Take this opportunity to review the protocols for Spinal Motion Restriction (SMR). As the Ski Patrol deals with Anne, she calls you over and states rather emphatically that this better not end up in the refresher workbook. Hmmm.....

COLD RELATED EMERGENCIES CHAPTER 25:

Demonstrate the management of a patient with **cold injuries**.

Describe and demonstrate the emergency care of an **avalanche victim**.

TABLE 25-3 SEVERITY OF COLD EXPOSURE

SEVERITY OF COLD EXPOSURE	PATIENT PRESENTATION	CORE BODY TEMPERATURE
Cold stressed	Alert, starting to shiver, can help themselves	95-97°F (35-36°C)
Mild hypothermia	Alert but may be confused, shivering	90-95°F (32-35°C)
Moderate hypothermia	Drowsy, decreased level of responsiveness, not shivering	82-90°F (28-32°C)
Severe hypothermia	Unresponsive, may not be breathing	<83°F (<28°C)

TABLE 25-2 SIGNS AND SYMPTOMS OF FROSTNIP AN FROSTBITE

Superficial (frostnip)	Skin appears cool and pale and may be painful; tissues remain intact and pliable
Partial thickness (frostbite)	Skin has white- or gray-colored patches that are not painful; tissue may indent if pressed; tissue loss, if present, is minimal
Full thickness (frostbite)	Skin is cold and feels hard or woody; tissue is white or gray and will not rebound when pressed; the area is numb (no pain); no pulse can be detected

Assess cold patient

- » Assess in order: Consciousness, Movement, Shivering, Alertness
- » Assess whether normal, impaired, or no function
- » The colder the patient is, the slower you can go, once patient is secured
- » Treat all traumatized cold patients with active warming to upper trunk
- » Avoid burns: following product guidelines for heat sources; check for excessive skin redness

Conscious	Movement normal	Shivering	Alert	<p>Cold stressed, not hypothermic</p> <ol style="list-style-type: none"> 1. Reduce heat loss (e.g. add dry clothing) 2. Provide high-calorie food and drink 3. Move around/exercise to warm up
Conscious	Impaired movement	Shivering	Alert	<p>Mild Hypothermia</p> <ol style="list-style-type: none"> 1. Handle gently 2. Have patient sit or lie down for at least 30 min. 3. Insulate/vapor barrier 4. Give heat to upper trunk 5. Give high-calorie food or drink 6. Monitor for at least 30 min. 7. Evacuate if no improvement
Conscious	Impaired movement	Not Shivering	Not Alert	<p>Moderate Hypothermia</p> <ol style="list-style-type: none"> 1. Handle gently 2. Keep horizontal 3. No standing/walking 4. No drink or food 5. Insulate/vapor barrier 6. Give heat to upper trunk 7. Volume replacement with warm intravenous fluid (40-42 C) 8. Evacuate carefully
<p>If cold and unconscious</p> <p>Assume severe hypothermia</p>				<p>Severe Hypothermia</p> <ol style="list-style-type: none"> 1. Treat s Moderate Hypothermia, and <ol style="list-style-type: none"> a) IF no obvious vital signs, THEN 60-second breathing/pulse check, or assess cardiac function with cardiac monitor b) IF no breathing/pulse, THEN start CPR 2. Evacuate carefully ASAP



GERIATRIC EMERGENCIES CHAPTER 31 NO SKILLS OBJECTIVES

OEC REFRESHER 2020 CYCLE A SKILLS CHECKLIST	Each OEC technician must perform the following skills	Each OEC technician must participate as a team member	Instructor sign-off
Every OEC Technician must perform the following skills:			
Describe and demonstrate how to manage shock. Incorporate into all stations		X	
Demonstrate how to remove contaminated gloves	X		
Each OEC Technician must perform the following skills:			
Explain and demonstrate the following five parts of a patient assessment.			
Scene size-up	X		
Primary patient assessment	X		
History taking	X		
Secondary patient assessment	X		
Reassessment	X		
Demonstrate where you can take five pulses in five different locations on the body.	X		
Describe and demonstrate the procedure for obtaining the following vital signs:			
Pulse (heart rate)	X		
Respiratory rate	X		
Oxygen Saturation (can be done with respiratory/airway management)	X		
Each OEC Technician must perform the following skills:			
Describe and Demonstrate the proper way to clear an airway using suction.	X		
Demonstrate the sizing and placement of:			
Oropharyngeal airway	X		
Nasopharyngeal airway	X		
Describe and demonstrate how to properly set up and break down an oxygen tank with:	X		
Nasal cannula and	X		
Non-rebreather mask	X		
Explain what a pulse oximeter is and demonstrate how it is used.	X		
Each OEC Technician must lead one and participate in all others			
Describe and demonstrate the management of a transient ischemic attack		X	
Describe and demonstrate the management of the two types of stroke		X	
Hemorrhagic			
Ischemic			
Describe and demonstrate how to assess a patient who is having difficulty breathing (including breath sounds)	X		
Describe and demonstrate the appropriate management of a patient in respiratory distress.		X	
Demonstrate how to assist with an inhaler. Note: all must do.	X		
Demonstrate how to assess and treat a patient with a cardiovascular emergency		X	
Describe and demonstrate when to assist a patient in taking:			
Nitroglycerin		X	
Aspirin		X	
Each OEC Technician must perform the following skills:			
Explain and demonstrate the different methods to control bleeding.			
Direct pressure	X		
Pressure Dressing	X		
Tourniquet application	X		
Packing a wound	X		

OEC REFRESHER 2020 CYCLE A SKILLS CHECKLIST	Each OEC technician must perform the following skills	Each OEC technician must participate as a team member	Instructor sign-off
Each OEC Technician must lead one and participate in all others:			
Demonstrate how to care for an injured extremity when there is neurovascular compromise.		X	
Describe and demonstrate how to assess injuries in the following parts of the body and demonstrate how to care for them. (Choose at least three)			
Shoulder/scapula		X	
Clavicle		X	
Humerus		X	
Elbow		X	
Forearm		X	
Wrist		X	
Each OEC Technician must perform the following skills:			
Explain and demonstrate how to perform neutral head alignment	X		
Demonstrate how to size and apply a cervical collar	X		
Each OEC Technician must lead one and participate in all others:			
Demonstrate how to perform an axial drag		X	
Demonstrate how to properly care for a patient with a brain and spinal cord injury		X	
Demonstrate how to maintain proper spinal alignment while placing a patient on to a long back board from a supine position.		X	
Demonstrate how to secure a patient to a long back board		X	
Demonstrate how to place a patient on a full-body vacuum mattress.		X	
Each OEC Technician must lead one and participate in all others:			
Describe and demonstrate how to assess and manage a patient with a penetrating injury to the eyeball.		X	
Describe and demonstrate how to assess and manage the proper care of face injuries: penetrating trauma.		X	
Each OEC Technician must lead one and participate in all others:			
Demonstrate the management of a patient with cold injuries:			
Frost bite		X	
Hypothermia		X	
Describe and Demonstrate the emergency care of an avalanche victim		X	
Group			
Case Review discussion		X	

REFRESHER EVALUATION FORM

Name (optional): _____

Date: _____

Home Patrol: _____

Refresher Location: _____

1. The refresher was well-organized.
 Strongly agree Agree Neutral Disagree Strongly disagree
2. The presentations were clear and well-prepared.
 Strongly agree Agree Neutral Disagree Strongly disagree
3. At the skills stations, I understood what I needed to do at each one.
 Strongly agree Agree Neutral Disagree Strongly disagree
4. The equipment we used was in good condition, and there was enough to go around.
 Strongly agree Agree Neutral Disagree Strongly disagree
5. The instructor(s) provided fair feedback of my skills.
 Strongly agree Agree Neutral Disagree Strongly disagree
6. The refresher was run in a relaxed, positive manner.
 Strongly agree Agree Neutral Disagree Strongly disagree
7. Did you use your *OEC 6th edition* to review the refresher topics and complete your workbook?
 Yes No
8. The Refresher Workbook was helpful in preparing for this refresher.
 Strongly agree Agree Neutral Disagree Strongly disagree
9. The Refresher Workbook reviewed the skills required for this year's refresher cycle.
Did the instructors incorporate this material into the skills stations? Yes No
10. The "Case Review" was helpful, and a valuable part of the refresher.
 Strongly agree Agree Neutral Disagree Strongly disagree
11. Overall, I would rate this refresher:
 Excellent Very good Good Needs improvement

12. What are the strengths of the refresher?

13. What could be improved in the refresher?

14. I'd like my instructor(s) to do a better job of:

15. My instructor(s) did an excellent job of:

16. Have you ever used your OEC skills in a place other than your normal patrol environment? If so, where?

Participants: Please return this completed form to your instructor.
Instructors: Please submit this form to the proper person per your region or division guidelines.
Please DO NOT mail forms to the national office.

We welcome your comments and suggestions for improving NSP OEC programs.
Please be as specific as possible, and use another sheet of paper if needed.

2020 CYCLE A OEC REFRESHER COMMITTEE STATEMENT

The mission of the OEC Refresher Committee is to provide assistance to all Outdoor Emergency Care technicians so that they may effectively review Outdoor Emergency Care content and skills each year and render competent emergency care to the public they serve. The objectives of the program are to:

- Provide a source of continuing education of all OEC technicians.
- Provide a method for verifying OEC technician competency in OEC knowledge and skills.
- Review the content of the OEC curriculum over a three-year period.
- Meet local patrol and area training needs in emergency care.

Email the Refresher Committee at refresher@nspserver.org



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OEC 6th edition

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