

NATIONAL SKI PATROL ■ OUTDOOR EMERGENCY CARE

2002 refresher



study guide

CYCLE

a



Introduction

Construction Zone

When the National Ski Patrol drew up the blueprints for its Winter Emergency Care Program back in the late 1980s, it showed great vision for what was destined to be a major contribution to the emergency services landscape. Now known as Outdoor Emergency Care (OEC), the program has truly become a landmark in prehospital care. Made better over the years by timely updates and careful renovations, OEC gives you the skills you need to provide expert care to people who become ill or injured in the outdoor environment. The annual refresher and this study guide are invaluable means of helping you maintain those skills.

And speaking of timely updates, the OEC Program's primary textbook has also been the subject of an extensive remodeling project—one that's given it a fresh look and made it more functional than ever before. Available in July, the fourth edition of *Outdoor Emergency Care* will undoubtedly be an indispensable educational resource for a broad range of emergency care providers—not just patrollers but search and rescue personnel and the larger community of outdoor recreationists as well. The text has been revised and expanded in scope to present the most up-to-date content possible. In addition, overall clarity has been enhanced through the use of color photographs that depict rescue situations, illustrate skill drills, and offer insights on how to perform various emergency care procedures. Photos of actual injuries and x-rays add yet another dimension to this already outstanding teaching tool.

By partnering with Jones and Bartlett Publishers to produce the fourth edition of *Outdoor Emergency Care*, the NSP has also established a nearly limitless conduit of online learning opportunities for association members. Shortly after the new text is released, NSP members will be able to access a new website called OECZone.com, which will include educational flash cards, an animated review of anatomy and physiology, and an interactive glossary, among other features.

The OEC Refresher Committee, which has prepared this *Refresher Study Guide*, is tremendously excited about the evolution of the Outdoor Emergency Care Program and its invaluable textbook. We encourage you to advance your education and update your emergency care library by purchasing the fourth edition upon its release. In this year of transition from third to fourth edition, references for both texts are included in this guide, but be aware that new content—such as pediatric concerns and emergency care for adaptive/special populations—will be incorporated into this fall's refresher.

In structuring this year's refresher and developing this guide, the committee has heeded a call from patrollers to design a more “hands-on” learning experience. Use this guide and the support articles found elsewhere in this issue of *Ski Patrol Magazine* with confidence to reinforce your awareness of the OEC concepts and skills covered in Cycle A. We may be the architects, but you're the one who is building the knowledge base upon which your emergency care decisions rest.

The Foundation

- The OEC refresher program provides NSP members with a continuing education opportunity to renew and demonstrate competency in required OEC knowledge and skills while using a variety of equipment and techniques.
- To maintain membership in the organization for the upcoming ski season, NSP members must successfully complete the annual OEC refresher. The only NSP members exempt from this requirement are those registered candidate patrollers who are enrolled in an OEC course, those members who completed a full OEC course after May 31 of the current calendar year, and those members who are registered as medical associates.
- A refresher is *not* the equivalent of a professional challenge for a candidate patroller entering the NSP system with previous emergency care or medical training.
- A patroller who wishes to renew active status from an inactive registration or a missed patrolling season must
 1. complete the refresher cycle(s) missed during the inactive period (only those patrollers with a non-expired OEC certification may renew active status), and
 2. pay national dues for each inactive or missed year.

CONSTRUCTION
ZONE



Lay a
Strong foundation

Trowel

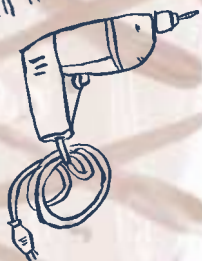


Tape Measure



Tools

Drill the basics



Drill

Building Plans

- Check with your patrol or region to determine when and where the refresher will be held. If you have a conflict, contact the OEC region administrator or check your division website for an alternate date. *Do not* wait until the last minute to do this. It is *your* responsibility to find out when the refresher is being held.
- *Please notify your patrol representative in advance if you will not be able to attend your patrol's refresher.* Likewise, please prearrange attendance at another refresher with that instructor of record or patrol representative.
- Allow yourself plenty of time to study the *Outdoor Emergency Care* references listed in this study guide for Cycle A. Note that during this transition year, references are provided for both the third and fourth editions of *Outdoor Emergency Care*.
- Review the objectives presented with the refresher topics.
- Read the scenarios in the Scenario Discussion Forum section of this study guide, write answers to the text and action questions that follow them, and bring your answers to the refresher.
- Use the skill guides in this study guide to review and practice the skills you will be asked to demonstrate during this year's refresher.
- Dust off your aid belt, vest, or fanny pack, restock it, and be ready to go!

Tools for the Job

- This *2002 Refresher Study Guide*. Remember to complete your written answers to the Scenario Discussion Forum text and action questions *before* you arrive.
- Your current OEC, CPR, and NSP member cards. (You may obtain a duplicate OEC card from the national office by mailing a check or money order [made payable to NSP] to the national office at 133 S. Van Gordon St., Suite 100, Lakewood, CO 80228. Enclose a note asking for a new OEC card and *allow three to four weeks for delivery.*)
- A fully stocked aid belt, vest, or pack *and* any additional items required at the refresher you will be attending. Dress appropriately to participate in both indoor and outdoor refresher activities.

Punch List

- If you attend another region or patrol's refresher, be sure the instructor of record has all the necessary information to verify your completion of the refresher to the national office on a supplemental roster. The roster must include your NSP membership I.D. number, name (as it appears in national registration records), patrol identification, and address. You may also want to use the verification form at the end of this guide to document your attendance to your patrol representative.
- Make sure the instructor of record signs and dates your OEC card on the line for Cycle A and returns it to you.
- Complete and hand in the "Patroller Evaluation for the 2002 OEC Refresher" found in this study guide.

CPR Policy

- All active NSP members must hold a current professional-rescuer CPR certification from the American Heart Association, the American Red Cross, the National Safety Council, or the American Health and Safety Institute. This must include training in two-rescuer CPR.
- CPR training may be completed in an independent patrol session, accomplished by each patroller on an individual basis, or included as a part of the OEC refresher. If CPR training is conducted in a patrol session or at an OEC refresher, organizers *must* allow appropriate CPR review time and use the instructional standards for updating cardholders provided by the certifying chapter or affiliate in accordance with guidelines established in the *Journal of the American Medical Association*, August 2000. *The certifying body need not issue a new certificate unless the certificate expires before the start of the upcoming ski season.*
- All active NSP members *must* demonstrate their CPR skills each season, regardless of the certifying agency's requirements or the expiration date of the card. The NSP's National Medical Committee stresses the importance of participating in this CPR skills refresher because repetition and practice help develop competency.

Tools



Wear Safety Gear



Hammer

CONSTRUCTION ZONE



Pliers



Saw

Cut to the Chase

Note: The OEC Refresher Committee has made every attempt to ensure that this study guide material is consistent with the fourth edition of *Outdoor Emergency Care* with regard to content, terminology, and skills assessment. As that textbook was not yet completed when this publication went to press, some inconsistencies may exist.

Cycle A Refresher Topics and Objectives

A. ANNUAL TOPICS AND OBJECTIVES

- Shock Management (in-depth topic)**—OEC, *3rd ed.*, chapter 7; OEC, *4th ed.*, chapter 9
 - Review the anatomy and physiology of the circulatory system and the different types of shock, their causes, and emergency care.
 - Recognize the potential for shock and its signs and symptoms.
 - Demonstrate techniques to prevent and manage shock.
- Cold-Injury Management (in-depth topic)**—OEC, *3rd ed.*, chapters 1 and 19; OEC, *4th ed.*, chapters 2 and 15
 - Review the body's heat-production mechanism as well as hypothermia, frostbite, and other illnesses and injuries related to the cold environment.
 - Describe the signs and symptoms of cold-related injuries.
 - Demonstrate techniques to manage patients with hypothermia, frostbite, or other cold-related illnesses and injuries.
- Patient Assessment**—OEC *3rd ed.*, chapters 3–5, 20, and 21 (chapter 20 is included as a reference for pediatric assessment); OEC, *4th ed.*, chapters 5, 7, and 30
 - Demonstrate patient assessment techniques used when assessing a responsive patient with a medical problem.
 - Practice obtaining vital signs.
- Airway Management and Oxygen Administration**—OEC, *3rd ed.*, chapter 6; OEC, *4th ed.*, chapter 6
 - Demonstrate airway management techniques, and the correct application and use of oxygen administration, airway adjuncts and suction equipment, and assisted ventilations.
- Common Outdoor Injury Management**—OEC, *3rd ed.*, chapters 9, 11, and 12; OEC, *4th ed.*, chapters 24 and 25
 - Describe the signs and symptoms of the most common outdoor-environment injuries, i.e., those relating to the shoulder girdle, wrist, and knee.
 - Demonstrate the emergency care for these injuries, i.e., administering a sling and swathe for shoulder-girdle injuries; a wire split or sling and swathe for wrist injuries; and a knee immobilizer for knee injuries.
- Neurological Injury Management**—OEC, *3rd ed.*, chapters 9, 13, and 14; OEC, *4th ed.*, chapter 26
 - Demonstrate the ability to recognize patients with head and/or spinal injuries.
 - Integrate the application of spinal immobilization techniques and devices (spineboard and cervical immobilization device) into other refresher scenarios and stations.

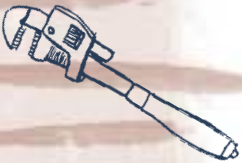
B. CYCLE-SPECIFIC TOPICS AND OBJECTIVES

- Anatomy and Physiology** OEC, *3rd ed.*, chapter 2; OEC, *4th ed.*, chapter 4
 - Skin**
 - List and describe the major structures and functions of the skin.
 - Describe how the skin interacts with other body systems in health, disease, and injury.
 - Circulatory System**
 - List and describe the major structures and functions of the circulatory system.
 - Describe how the circulatory system interacts with other body systems in health, disease, and injury.

CONSTRUCTION
ZONE



use a
measured response



Tools

keep your tools sharp



file



Drill

2. Orthopedic Trauma—OEC, 3rd ed., chapters 10 and 11; OEC, 4th ed., chapters 24 and 25

Upper Extremity Injuries, Injuries at or Near Joints, and Open Fractures

- Describe the signs and symptoms and principles of emergency care for upper extremity injuries.
- Demonstrate the proper assessment and correct application of various immobilization techniques and devices for a shoulder dislocation, an upper arm injury, an elbow injury, and a forearm injury.
- Demonstrate the correct management of injuries at or near a joint.
- Demonstrate the correct management of an open fracture before and during immobilization.

3. Environmental and Medical Emergencies—OEC, 3rd ed., chapters 18, 19, 21, and 23; OEC, 4th ed., chapters 11–14 and 16

Major Medical Emergencies

- List and describe the causes, signs and symptoms, and emergency care for major medical emergencies.
- Use the in-depth history and/or examination techniques found in chapters 11–13, and 16 of *Outdoor Emergency Care*, fourth edition, to obtain a history, perform an assessment, and identify the medical emergency. Address each of the following:
 - Heart attack
 - Stroke
 - Diabetes-related situations
 - Seizures
 - Carbon-monoxide poisoning
 - Substance abuse

Snowsports Emergencies

- Describe the signs and symptoms of injuries that might arise from sports activities (other than skiing) offered at your recreation area.
- Outline the emergency care for those injuries.

4. Specific Injuries—OEC, 3rd ed., chapters 7 and 8; OEC, 4th ed., chapters 8 and 19

- Demonstrate essential emergency care for thermal burns.
- Demonstrate techniques for controlling external bleeding and managing all soft-tissue injuries.
- Demonstrate general bandaging techniques.
- Demonstrate the correct application of body substance isolation to minimize exposure to body fluids in all applicable patient care situations.
- Demonstrate assessment, use of immobilization equipment, and transportation for pediatric and adaptive populations.

5. Transportation and Extrication—OEC, 3rd ed., chapters 14 and 22; OEC, 4th ed., chapter 27

Positioning Patients

- Review the advantages and disadvantages of re-positioning and/or moving a patient into each of the three main “jams-and-pretzels” positions of neutral alignment and of performing a long-axis drag.
- Demonstrate the correct technique for moving a patient into each of the three main jams-and-pretzels positions and for performing a long-axis drag.

6. Local Needs

- Review applicable local requirements, topics, and equipment related to the performance of outdoor emergency care at the patrol level. The OEC instructor of record will review these concepts with patrol officers and the medical advisor before the refresher to determine how to integrate applicable techniques or equipment into the current OEC refresher.

Specific area emergency care training may be accomplished at this time, including AED skills training as appropriate. Organizers may need to lengthen the overall refresher program to adequately cover these subjects. *This objective is not to be confused with additional local training for patrol operations, such as lift evacuation, commonly accomplished in a separate on-the-hill refresher.*

Tools



Pliers

Know which way
to turn



Screwdriver

Hammer



CONSTRUCTION
ZONE

Skill Guides

These are provided for review purposes. Each patroller will be required to demonstrate these skills at the refresher.

(CPI) = Critical Performance Indicator

Steps marked with the CPI designation are critical to proper patient care and must be demonstrated to satisfy performance criteria.

Bleeding Control/Shock Management

Objective: To demonstrate the ability to control severe bleeding and manage shock.

SKILL	YES	NO	NOTATIONS
BLEEDING CONTROL			
■ Initiates BSI precautions.			(CPI)
■ Recognizes the severity of the bleeding and gives it proper priority.			
■ Exposes the wound site.			
■ Applies direct pressure, using a dressing.			(CPI)
■ Elevates the wound site above the level of the heart.			
■ Maintains direct pressure and elevation; applies additional dressing if needed.			
■ Applies direct pressure to the appropriate arterial pressure point if bleeding has not been controlled.			
■ Bandages the wound and immobilizes as necessary.			(CPI)
SHOCK MANAGEMENT			
■ Determines if patient is showing signs and symptoms of shock.			
■ Applies high concentration oxygen.			
■ Initiates steps to prevent heat loss from the patient.			
■ Properly positions the patient.			
■ Provides for rapid transport.			
■ Did the trainee or OEC technician adequately demonstrate the performance criteria of these skills?			

BLEEDING CONTROL Applies direct pressure



Maintains pressure and elevation



Applies additional dressing

SHOCK MANAGEMENT Applies oxygen



Properly positions patient



Provides for rapid transport

Patient Assessment—Responsive Medical Patient

Objective: *To demonstrate the ability to determine the baseline condition and specific complaint of a responsive patient with a medical problem.*

SKILL	YES	NO	NOTATIONS
SCENE SIZE-UP			
■ Initiates BSI precautions.			(CPI)
■ Determines that the scene is safe.			(CPI)
■ Determines the nature of illness (NOI) and/or the mechanism of injury (MOI).			
■ Notes the number of patients and the responsiveness of each.			
■ Evaluates the need to disentangle or extricate the patient(s). Considers c-spine immobilization.			
■ Notes the need for personnel or equipment.			
INITIAL ASSESSMENT—RESPONSIVE PATIENT			
■ Offers to assist/obtains the patient's consent.			
■ Confirms general impression of the patient and/or level of responsiveness (LOR).			
■ Assesses airway, breathing, and circulation (ABCs).			(CPI)
■ Assists breathing, or performs CPR as necessary.			(CPI)
■ Checks for severe bleeding; intervention = control bleeding.			(CPI)
■ If the patient has abnormal ABCs or presents a poor general impression, the rescuer performs the rapid body survey, obtains baseline vital signs, obtains the SAMPLE history, and provides rapid transport.			
■ Obtains the chief complaint.			(CPI)
■ Calls for transport, equipment, assistance, and/or EMS as needed.			

continued



Confirms general impression



Obtains chief complaint

Patient Assessment—Responsive Medical Patient (continued)

Objective: To demonstrate the ability to determine the baseline condition and specific complaint of a responsive patient with a medical problem.

SKILL	YES	NO	NOTATIONS
FOCUSED HISTORY AND PHYSICAL EXAM—MEDICAL PATIENT			
■ Obtains the SAMPLE history using OPQRST.			(CPI)
■ Conducts a medical-focused physical exam of the area of chief complaint; confirms chief complaint.			(CPI)
■ Stabilizes and maintains the patient's body temperature.			
■ Determines the appropriate baseline vital signs.			
■ Provides care for the chief complaint: interventions = as needed.			(CPI)
■ Transports the patient off the hill.			
■ Performs a detailed physical exam as necessary.			
■ Performs ongoing assessment.			
■ Did the trainee or OEC technician adequately demonstrate the performance criteria of these skills?			



Conducts medical-focused physical exam



Provides care for chief complaint

Vital Signs Determination

Objective: *To demonstrate the ability to determine a set of baseline vital signs.*

SKILL	YES	NO	NOTATIONS
■ Initiates BSI precautions.			(CPI)
LEVEL OF RESPONSIVENESS (LOR)			
■ Assesses the patient's LOR using the AVPU scale.			
■ Determines the patient's pupil diameter and reaction to light.			
PULSE			
■ Palpates the radial pulse and determines the rate.			(CPI)
■ Describes the rhythm and strength.			
■ Palpates the carotid pulse and determines the rate.			(CPI)
■ Palpates the dorsalis pedis pulse, as necessary, and determines the rate.			
RESPIRATIONS			
■ Assesses the rise and fall of the chest wall for 30 seconds to determine the respiratory rate.			(CPI)
■ Assesses respirations with respect to rhythm, effort, depth, and noise.			
BLOOD PRESSURE BY AUSCULTATION OR PALPATION			
■ Applies the blood pressure cuff to the arm above the elbow, centering it over the brachial artery.			
■ Inflates the cuff while auscultating the brachial pulse or palpating the radial pulse.			
■ Continues to inflate the cuff to 20 mmHg above the point at which the pulse is no longer heard or felt.			
■ Slowly releases the pressure, noting when pulse is first heard or felt (systolic) and again when sound is absent (diastolic by auscultation only). Reports the values.			(CPI)
■ Did the trainee or OEC technician adequately demonstrate the performance criteria of these skills?			



Assesses LOR



Palpates the carotid pulse



Assesses respiration



Applies blood pressure cuff to the arm

Use of Oxygen and Airway Adjuncts—Administration of Oxygen

Objective: *To demonstrate the correct use of oxygen equipment.*

SKILL	YES	NO	NOTATIONS
■ Initiates BSI precautions.			(CPI)
■ Assembles oxygen cylinder and regulator, and checks for leaks.			(CPI)
■ Chooses a delivery device by patient need. <ul style="list-style-type: none"> ■ Selects non-rebreather oxygen mask, connects to regulator, pre-fills the regulator, and initially adjusts oxygen flow to 12–15 lpm. ■ Selects nasal cannula, connects to regulator, and adjusts oxygen to 6 lpm maximum. 			(CPI)
■ Applies the appropriate oxygen delivery device to the patient and verifies that the patient receives oxygen. If using a non-rebreather mask, readjusts the flow rate to keep the bag half-full on inhalation.			(CPI)
■ Closes the oxygen tank when finished providing oxygen.			
■ Bleeds regulator device to “0.”			
■ Did the trainee or OEC technician adequately demonstrate the performance criteria of this skill?			

ASSEMBLES OXYGEN CYLINDER AND REGULATOR



Cracks valve, briefly



Assures the use of gasket



Aligns regulator on valve stem



Attaches oxygen supply tubing

PHOTOS COURTESY OF AMERICAN ACADEMY OF ORTHOPEDIC SURGEONS



Non-rebreather oxygen mask



Nasal cannula

Management of a Fracture At or Near a Joint

Objective: *To demonstrate the immobilization of a fracture site, the adjacent joints, and the extremity for a fracture or dislocation at or near a joint.*

SKILL	YES	NO	NOTATIONS
■ Initiates BSI precautions.			(CPI)
■ Assesses the limb, joint, and mechanism of injury (MOI) to determine the presence and location of a fracture and/or dislocation.			
■ Assesses circulation, motion, and sensation (CMS) of the limb.			
■ Prepares the immobilization device for use, taking into account any abnormal anatomical positioning of the limb.			
■ Manually stabilizes the fracture site and the limb. (Note: Continuous manual stabilization must be maintained until a mechanical device is applied and completely secured.)			
■ If there is no distal circulation, realigns the limb until unusual resistance is met or circulation returns.			(CPI)
■ Aligns the limb to near-anatomically correct position.			
■ Positions, applies, and secures the device without excessive movement of the limb, ensuring that all voids are filled.			
■ Makes sure that the fracture site, the joints above and below the injury, and the limb are immobilized.			(CPI)
■ Reassesses the CMS of the limb.			
■ Did the trainee or OEC technician adequately demonstrate the performance criteria of this skill?			



Prepares the immobilization device



Positions, applies, and secures the device



Immobilizes the joints above and below the fracture site



Reassesses the CMS of the limb

Management of An Open Fracture

Objective: To demonstrate the control of bleeding associated with an open fracture and immobilization of the limb.

SKILL	YES	NO	NOTATIONS
■ Initiates BSI precautions.			(CPI)
■ Assesses the limb, joint, and mechanism of injury (MOI) to determine the presence and location of a fracture and/or dislocation.			
■ Assesses the circulation, motion, and sensation (CMS) of the limb.			
■ Controls any bleeding that is present. <ul style="list-style-type: none"> ■ Exposes the fracture site. ■ Uses direct and indirect pressure, as appropriate. ■ Uses the pressure point, if necessary. 			(CPI)
■ Dresses and bandages the wound.			(CPI)
■ Prepares the immobilization device for use, taking into account any abnormal anatomical positioning of the limb.			
■ Manually stabilizes the fracture site and the limb. (Note: Continuous manual stabilization must be maintained until a mechanical device is applied and completely secured.)			
■ <i>If there is no distal circulation</i> , realigns the limb until unusual resistance is met or circulation returns.			(CPI)
■ Aligns the limb to near-anatomically correct position.			
■ Positions, applies, and secures the device without excessive movement of the limb, ensuring that all voids are filled.			(CPI)
■ Makes sure that the fracture site, the joints above and below the injury, and the limb are immobilized.			
■ Reassesses the CMS of the limb.			
■ Did the trainee or OEC technician adequately demonstrate the performance criteria of this skill?			



Assesses the limb



Controls bleeding



Positions, applies, and secures the device



Reassesses the CMS

Extrication From Difficult Positions (Jams and Pretzels)

Objective: To safely move an injured patient, especially one with a suspected neck or back injury, into a supine, anatomically neutral position on the ground or onto a long spineboard.

SKILL	YES	NO	NOTATIONS
■ Initiates BSI precautions.			(CPI)
■ Performs scene size-up and initial patient assessment.			
■ Calls for help (additional equipment, personnel, and EMS transport).			
■ Provides necessary interventions (maintains airway, performs CPR, and controls bleeding, etc.).			(CPI)
■ Stabilizes the cervical spine.			(CPI)
■ When additional personnel arrive, manually stabilizes the three reference points (head, shoulders, and hips).			
■ Assesses the circulation, motion, and sensation (CMS) of all limbs.			
■ Uses axial, smooth motions in small increments, and aligns one extremity at a time.			
■ Aligns all body parts into position 1 (progressing from higher to lower numbered position) as early as possible unless pain or resistance occurs.			(CPI)
■ Positions the patient on a long spineboard, maintaining spinal integrity at all times.			
■ Stabilizes the patient on the long spineboard and reassesses CMS.			(CPI)
■ Reassesses patient status and interventions, and continues with care, evacuation, and transport.			
■ Did the trainee or OEC technician adequately demonstrate the performance criteria of this skill?			



▼ Position 1a



▼ Position 2a



▼ Position 3a



▶ Position 1



▶ Position 2



▶ Position 3

Lifting Techniques—Long-Axis Drag

Objective: *To demonstrate techniques to move a patient over snow or other smooth terrain.*

SKILL	YES	NO	NOTATIONS
■ Initiates BSI precautions.			(CPI)
■ Maintains manual stabilization of the patient’s head and neck throughout the maneuver. Headward drag: supports or cradles the upper torso. Footward drag: supports or cradles the ankles and lower torso.			(CPI)
■ Moves in a crouched position, pulling the patient slowly and smoothly about 12 inches at a time.			
■ Repositions self and repeats the drag until reaching the desired location.			
■ Did the trainee or OEC technician adequately demonstrate the performance criteria of this skill?			



Maintains head and neck stabilization



Supports upper torso



Moves in crouched position

Scenario Discussion Forum

YOUR NAME: _____

The Scenario Discussion Forum has become a major review medium for the OEC refresher and, according to patroller evaluations submitted last fall, possibly the most practical refresher station. To meet the learning intent of this exercise, the Scenario Discussion Forum should be conducted as a guided discussion among small groups of one instructor and seven to 10 patrollers. Every patroller should participate.

Lending realism to the exercise, the three scenarios that follow are based on actual incident reports filed at different resorts during the past two ski seasons. Text questions are based upon material in *Outdoor Emergency Care*, and chapter references are included for both the third- and fourth-edition texts. The action questions are meant to stimulate friendly discourse and interaction—with no one right answer intended!

As in the past several years, the *Refresher Study Guide* and the Scenario Discussion Forum will be available for download from the NSP website, in PDF and Word format, respectively. (Look for the Education/Outdoor Emergency Care link on the main website at www.nsp.org.) You can either print out the forum pages and write in the answers or download the forum to your personal computer, type in your answers, and then print the resulting document.

To complete this segment of the study guide, carefully read the following three scenarios. Then, use the space provided on the sheet or your computer screen to answer the text questions relating to each scenario. Use additional paper if necessary. Next, answer the three action questions that follow each scenario. Finally, bring these Scenario Discussion Forum sheets (or your computer printout of same) with you to your refresher for review and reference at this station.

SCENARIO 1

While attempting an aerial maneuver on a terrain park's 9-foot-high spine feature, a teenaged snowboarder loses his balance and attempts to break his fall by reaching down with his extended left hand. He lands very hard on his left side, with his left elbow flexed against his ribcage. He does not lose consciousness.

Upon arriving at the scene, you find the rider lying on his left side in the fetal position. He complains of severe pain in his left rib cage and left wrist, and somewhat less pain in his mid-back. Your assessment reveals that the rider is alert and responsive, but he has significant point tenderness of the mid-back between the shoulder blades, deep tenderness and guarding of the left upper abdominal quadrant, and tenderness/swelling of the left wrist without deformity. The initial vital signs are: pulse, 112 and strong; respirations, 22 and shallow. When the toboggan arrives 10 minutes later the vital signs are: pulse, 128 and thready; respirations, 22 and shallow. The rider is becoming anxious and diaphoretic.

Text Questions

1. The most common upper extremity injury among snowboarders is _____.
OEC, 3rd ed., chapter 23; OEC, 4th ed., chapter 14

2. The three major categories of shock are

1. _____

2. _____

3. _____

OEC, 3rd ed., chapter 7; OEC, 4th ed., chapter 9

3. List four examples of serious internal bleeding.

1. _____

2. _____

3. _____

4. _____

OEC, 3rd ed., chapter 7; OEC, 4th ed., chapter 8

Action Questions

1. List the injuries of concern described in this scenario.

2. List, in order of priority, the emergency care procedures you would initiate in this scenario.

a. _____

b. _____

c. _____

d.

e.

f.

g.

h.

i.

j.

k.

3. List the additional personnel and equipment you would require at the incident site, and indicate what outside resources you would need to summon.

a.

b.

c.

d.

e.

f.

g.

h.

SCENARIO 2

At 10:45 on a stormy morning you are summoned to your resort hotel to provide emergency care for an unresponsive child. As you rush into the lobby, you see several children crowded around a boy who looks to be about 8 years old. The child, who is lying on the floor, is pale, diaphoretic, and unconscious. A girl of about 16 identifies herself as the boy's sister and tells you he's diabetic. She says that they arrived at the area two hours earlier with a church youth group, and her brother was excited to get out on the mountain to ski. In response to your questions, she reports that he ate very little for breakfast but took his usual dose of insulin. He began to feel shaky and confused while skiing, so the group skiing with him decided to come in for a break.

Suddenly, as you are talking with the sister, a commotion develops behind you. On a nearby couch, an approximately 70-year-old man has slumped to his right onto a woman who appears to be his wife. Leaving the little boy for a moment you turn to the man and find that he's staring ahead and is conscious but unresponsive. Initial vital signs are: pulse, 84 and irregular; respirations, 20 and shallow. In 5 minutes (within which time you go back and forth between the little boy and the elderly man until other patrollers arrive on the scene), the elderly gentleman's vital signs are: pulse, 80 and still irregular; respirations, 18 and deep. There is an advanced life support ambulance stationed at the resort.

Text Questions

1. List seven medical illness emergencies that may result in an unresponsive patient.

1.

2.

3.

4.

5.

6.

7.

OEC, 3rd ed., chapter 13; OEC, 4th ed., chapter 13

2. Describe the general emergency care for a non-trauma, unresponsive patient.

a.

b.

YOUR NAME:

- c. _____

- d. _____

- e. _____

- f. _____

- g. _____

- h. _____

- i. _____

OEC, 3rd ed., chapter 13; OEC, 4th ed., chapter 13

Action Questions

1. List the injuries and medical conditions described in this scenario.

2. a. What are the protocols at your resort for providing emergency care for a minor in the absence of a parent or guardian?

- b. What is the protocol for obtaining and documenting permission from a parent or guardian who is not present?

3. List, in order of priority, the emergency care you would provide for these patients and justify your transportation decisions.

a. _____

b. _____

c. _____

d. _____

YOUR NAME: _____

e. _____

f. _____

g. _____

h. _____

i. _____

j. _____

k. _____

l. _____

m. _____

n. _____

o. _____

p. _____

q. _____

r. _____

s. _____

t. _____

u. _____

v. _____

SCENARIO 3

On a very cold night near the end of the tubing session, a 9-year-old girl is riding on the outside lane of a large tubing park. Her tube ricochets repeatedly off the dividing lane berms at an increasing speed and then catapults over the outer berm, down an adjacent embankment, and into a stand of trees. When you arrive, the young girl is lying on her left side, supporting her partially flexed right arm across her chest and abdomen. She is sobbing and shivering violently, and you note that she's wearing jeans and a light windbreaker and has no hat. Your assessment reveals slow speech with slurred responses; palpable tenderness, swelling, and deformity of the right elbow; a right radial pulse that is diminished when compared to that on the left; and a weakened hand grasp on the right side. Her initial vital signs are: pulse, 108 and strong; respirations, 20 and shallow.

Text Questions

1. The initial emergency care for a fracture near a joint with diminished distal neurovascular function, where the hospital transport time is less than one hour, is

_____ and _____.

OEC, 3rd ed., chapter 11; OEC, 4th ed., chapter 25

2. List six signs and symptoms of mild hypothermia.

a. _____

b. _____

c. _____

d. _____

e. _____

f. _____

OEC, 3rd ed., chapter 19; OEC, 4th ed., chapter 15

3. List seven snowsports activities other than alpine skiing and tubing.

a. _____

b. _____

c. _____

d. _____

e. _____

f. _____

g. _____

OEC, 3rd ed., chapter 23; OEC, 4th ed., chapter 14

Action Questions

1. List the injuries described in this scenario.

2. What area management concerns do you see arising from this scenario?

3. If you were to provide an EMS interface/communications report before transferring this young girl to the hospital, what would you include in the report?

notes

Completion Acknowledgement

Have this signed by the instructor of record at the refresher, and return it to your NSP patrol representative or patrol director to verify that you have attended and successfully completed all requirements for the 2002 refresher. *Please print.*

Patroller:

NSP Member I.D. #:

Ski Patrol Registered With:

Refresher Location and Date:

OEC Instructor of Record Name:

OEC Instructor of Record Signature:

 CUT HERE

Supplemental Roster Information

After completing the refresher, fill out this form and submit it to the instructor of record. This will help the instructor document your completion of this year's OEC refresher requirements to the national office. *Please print.*

Patroller:

NSP Member I.D. #:

Address:

City:

State:

Zip:

E-mail Address:

Ski Patrol Registered With:

Region:

Refresher Location and Date:

OEC Instructor of Record Name:

input appreciated

The National Ski Patrol is committed to offering top-notch training resources that help patrollers provide the best patient care possible. With the inclusion of content from the new, fourth edition of *Outdoor Emergency Care*, the 2002 Cycle A refresher presents the perfect opportunity to review updated educational material and incorporate it into your personal skill set.

As the refresher process continues to grow and evolve in support of an ever-improving OEC Program, patroller input is crucial. The OEC Refresher Committee fully recognizes that the quality of this educational opportunity is dependent on constructive and creative feedback. When you take the time to contact a committee member or your division OEC supervisor, you invest interest and a desire for continued quality in the OEC Program. On the back cover of this study guide you will find the names of the committee members and OEC supervisors, their patrol or division affiliations, and their contact information. These individuals bring together a wealth of patrol experiences and a wide range of backgrounds, and they take pride in presenting materials that are topical and contemporary. They also feel passionate about gathering your views. Drop them a note, add your comments to an evaluation form, or send them your ideas. You also may forward comments to the education department at the national office through its e-mail address, education@nsp.org.

The refresher committee is particularly interested in your training needs, ideas for activities, and suggestions for alternative ways to communicate OEC content. Committee members are also good resources to consult with regard to refresher-related problems that cannot be dealt with locally. Remember, the quality of your refresher hinges on your input!

Patroller Evaluation

This evaluation is designed to help local instructors, patrol officers, and the OEC Refresher Committee review and improve the annual OEC refresher. Last year's responses were greatly appreciated, and we look forward to receiving your feedback again this year.

	What did you like best?	What needs improvement?
1. Refresher overall		
2. Refresher Study Guide		
3. Scenario Discussion Forum		

How helpful to you were the following elements in refreshing this year's OEC topics?

On each continuum below, please circle the ONE number that best represents your impression.

Hands-on Stations

Not at all helpful Helpful Very helpful
 1 2 3 4 5 6 7 8 9

Additional Comments:

Presentations

Not at all helpful Helpful Very helpful
 1 2 3 4 5 6 7 8 9

Additional Comments:

Scenarios

Not at all helpful Helpful Very helpful
 1 2 3 4 5 6 7 8 9

Additional Comments:

Please return this evaluation to the refresher instructor of record before you leave the refresher.

DIVISION:

PATROL:

NAME (OPTIONAL):

2002 refresher



study guide

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