

HISTORY AND PHYSICAL EXAMINATION

A Winter Emergency Care Training Video

WEC INSTRUCTOR'S GUIDE

*Review this booklet prior to using video
for training purposes*



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CONTENTS

	Page
About the National Ski Patrol	4
Introduction	5
Film Format	6
Suggested Film Uses	8
References/Bibliography	10
Key Discussion Topics	
General Issues	11
The Responsive Patient	17
The Unresponsive Patient	19

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ABOUT THE NATIONAL SKI PATROL

The National Ski Patrol is the largest winter rescue organization in the world. Members provide rescue, emergency care and ski safety education services for ski areas' customers across the country. It has 25,000 members, made up of volunteer and professional patrollers, who actively participate in training programs every season.

The National Ski Patrol is the developer and certifying body for Winter Emergency Care, a highly acclaimed and well-recognized training program for emergency care procedures in the nonurban setting.

The organization was federally chartered by the Congress of the United States in 1980. It supports a nationwide administrative structure that consists of a national headquarters, a professional staff of 12, 11 administrative units and over 600 member units. The national headquarters in Lakewood, Colorado houses the National Ski Patrol's education and publications departments, member and computer services, catalog order department, warehouse and shipping department.

INTRODUCTION

The success of Winter Emergency Care can be directly related to the efficiency and motivation of WEC instructors. Training is a vital key in the patroller's learning process. The trainees and patrollers are dependent on the training, guidance, and encouragement they receive from qualified instructors.

The WEC video film library is designed to stimulate the interest of the viewers and to offer optimum training for both new trainees and refreshing patrollers. What an instructor cannot bring to the classroom is the adrenal surge that a ski patroller gets when called to an accident site nor the various environmental, personal and particular mechanical problems encountered at the site of an accident.

This video presents realistic emergency situations following recognized skill performance objectives but provides a variety of skill applications to illustrate local procedures and to stimulate discussion.

This video is intended for multiple levels of training and usefulness. This guide will detail appropriate discussion points expected from trainees and new patrollers with no experience on the hill and the seasoned patroller in a continuing education or refresher session.

FILM FORMAT

The History and Patient Examination video follows WEC skill performance guidelines with specific focus on assessment of an injured skier. This video is not designed to demonstrate the emergency care procedures for the illness or injury nor does it involve the transportation of the patient from the mountain or any other aspects of patrolling involved in handling an injured skier.

The 16 minute film is divided into two main subject areas.

1. Responsive Patient
2. Unconscious/Unresponsive Patient

Each segment has been identified with a video counter number to provide easier location. Since video equipment varies, this number may not be exact.

The following key points are illustrated throughout the film:

- Primary Survey
- Secondary Survey
- Medical History
- Vital Signs
- Communication

FILM FORMAT

(continued)

1. Focus specifically on history and physical examination. Note that in reality portions of the history and physical are not always completed on the hill or trail, although the patroller should mentally review every aspect of assessment when approaching each accident. Once at the accident site, the patroller should utilize the appropriate assessment procedures for that particular situation.
2. Techniques used in the video satisfy the WEC skill performance guidelines. Local patrol procedures may use other techniques, but they must satisfy the same WEC skill performance objectives.
3. Communication with the injured skier incorporate consent, assessment, and determination of suspected injuries.
4. Communication with other patrollers promotes teamwork and leadership.

SUGGESTED FILM USES

NOTE: This film is designed to be a unit on patient assessment, with no emphasis on emergency care treatment of suspected injuries.

1. Schedule the use of this film *following* the teaching and practice of patient assessment. Trainees must have already experienced the development and application of a consistent and thorough dialogue to complete the assessment objectives in classroom situations.
2. Review the film in advance of the training session. Pick out the key points for your own instructional use for the appropriate training level of your trainees.
3. Following practice sessions, introduce the film to the trainees or patrollers, stressing particular areas for attention. General discussion of the main points will vary depending on the level of training you are teaching.

Use the general discussion questions on assessment procedures, principles of splinting, understanding of significant anatomy and physiology factors, local techniques and equipment procedures to build and relate the lessons in the film to the patroller's experience.

SUGGESTED FILM USES

(continued)

4. Use sections of the video during refresher sessions. Compare local accident procedures with the video sequences.
5. Use the video as an interactive technique. Introduce the problem, then stop the video and use either group or individual interactive techniques to progress through the problem. (For example, the video would run to the point that the patroller begins his interview; the video would then be stopped, and the patroller would be asked to continue. After he continues for a period of time, the scenario is then stopped and the video is run to see how patroller performed with respect to the video. Differences could be discussed and errors could be corrected if any occurred.)

This teaching technique is most useful on an individual basis or in small groups and would be recommended for use with seasoned patrollers or trainees in your classes who have easily grasped the material and may require a more challenging teaching experience.

6. At the end of the session, show the film through again to confirm learning points.

REFERENCES

1. *Outdoor Emergency Care*
Chapter 2 Overview of Human Anatomy
and Physiology
Chapter 3 Surface Anatomy
Chapter 4 Patient Assessment
Chapter 10 Mechanisms and Patterns of
Injury
Chapter 21 Ski Injuries
2. *Winter Emergency Care Instructor's
Manual*
Lesson 1, 2
3. *Winter Emergency Care Skill Performance
Guidelines*
Vital Signs Determination
Patient Assessment
4. *Winter Emergency Care Workbook*
5. *Ski Patrol Magazine*
Continuing Education articles
WEC articles

HISTORY AND PHYSICAL EXAMINATION

GENERAL ISSUES

KEY DISCUSSION TOPICS

T=Topic D=Discussion points

T. Mechanism of injury

- D. Discuss general mechanisms and patterns that cause ski injuries at various speeds. Describe those factors which contribute to and reduce skiing injuries.

T. Dispatch communications - English versus codes

- D. Dispatch codes may be in English or numerical. There are advantages and disadvantages to each. While codes are a kind of radio shorthand, they provide a consistent language, e.g. 10.50 for "wreck". Most radio broadcasts can be monitored. Other codes then become important to identify patrollers and specific types of equipment needed for the accident scene. Skiing guests may be less likely to know of the activity with the use of codes. Would a specific code translate into a request for a specific group of equipment and would this expedite its travel to the accident scene rather than a patroller requesting each item. Discuss procedure for reporting accident locations.

GENERAL ISSUES

T. Approaching the scene of an accident

- D. Discuss items which are important in obtaining an accurate understanding of the emergency situation; specifically, what can be learned before reaching the patient (hands off survey) and the importance of the first impression. Discuss the patient's location as it relates to the accident and the assessment.

T. Consent to assist and treat

- D. Discuss the legal rights of a patient to accept or refuse treatment or transportation. What documentation is needed if consent to assist and treat is denied? Discuss the use of the initial comments and questions to obtain consent to begin patient care.

T. Approaching the patient--verbal questioning

- D. Review the skill performance objectives for patient assessment. In addition to important information about the accident, a sense of the level of orientation or sense of consciousness of the injured skier (orientation to person, place, time, and event) should be obtained. It is important that each patroller develop a consistent and thorough dialogue to complete the assessment objectives. Discuss variations in approaching a person in the lodge or involved in a traumatic situation.

GENERAL ISSUES

T. Medical history

- D. The significance and use of medical history is not for diagnosing, but to develop a higher degree of examination. The mnemonic AMPLE (*Outdoor Emergency Care*, page 95) helps to remember the important elements of identifying the patient's medical history.

T. Vital signs

- D. Describe and discuss the significance of taking vital signs (pulse and respirations), their effectiveness in assessment, and how they should be monitored. Discuss the relationship of the vital signs with various types of injuries, shock and the effects of cold. Skin changes may not be valid in cold environments. Review local procedures for the appropriateness of taking blood pressure on the hill.

T. Exposure in preparation for a thorough secondary survey

- D. Establish guidelines for how much exposure is necessary or appropriate for assessment of an injury in the cold, winter environment. Discuss how long is exposure maintained or the importance of exposing all suspected injuries. Describe options to exposure during primary survey.

GENERAL ISSUES

T. *Gloves*

- D. Discuss the appropriate use of latex or rubber gloves, and ski gloves.

Discuss considerations and appropriate times to examine an injury with ski gloves versus bare handed. Consider factors of environment, terrain, and particulars of the injury which might justify protection of the rescuer's hands. Discuss the local procedures regarding the management of accidents with either gloves on or off.

Ski gloves generally reduce your sensory input. Therefore, in general, injured skiers should be examined with ski gloves removed. There are situations such as in extreme cold or extreme damp or when there are dangerous objects at the accident scene that it is more appropriate for the rescuer to wear gloves. It must be emphasized that whenever there is a potential for contact with body fluids or blood, rubber or latex gloves should be worn. If rubber or latex gloves are not available, ski gloves are an adequate substitute.

GENERAL ISSUES

- T. *Oxygen administration*
- D. Oxygen is administered in the video using Mammoth Mountain equipment. As an example of local medical procedures, Mammoth's procedure is to use oxygen (or have oxygen available) at all accident situations since the majority of their skiers are coming from much lower elevations. Patrollers need to be familiar with local equipment and procedures chosen and developed for the use of oxygen.

- T. *Local procedures*
- D.
 1. Procedural differences between video and your area. Identify and discuss specific procedures.
 2. Technical differences between video and your area
 3. Equipment differences between video and your area. Discuss advantages and disadvantages for use.

- T. *Camera angle versus patroller position*
- D. There are portions of the video which place the patroller in a less than ideal position to manage the accident for the sake of allowing the camera to record the patroller's action. It may be useful to allow the trainee to discuss the importance of a rescuer having firm footing on which to work and working from a comfortable position.

GENERAL ISSUES

Expansion Topics for Refresher and Continuing Education

T. Emergency Care

- D. Treatment of suspected injuries is not emphasized in this video. In refreshers, use this opportunity to explore assessment and emergency care alternatives based on the scenarios.

T. Loading into sled

- D. How to position and load the sled (*not addressed in this video*)

1. Consider terrain, slope, snow condition, obstacles, sled type, injury site, patroller assistance.
2. What condition would allow a patient to assist in his transfer.

In order to assist, the patient must be able to communicate with you. The patient must be able to understand your instructions, and complete them. In general this is a patient with a relatively minor injury. Discuss types of injury which are not amenable to having the patient assist you in his transport into the sled.

3. Sled positioned up-hill or down hill of the patient.

HISTORY AND PHYSICAL EXAMINATION

THE RESPONSIVE PATIENT

SCENARIO 1

Video Counter: 225

KEY DISCUSSION TOPICS

T=Topic D=Discussion points

Refer to General Issues, pages 11-16

T. First impression

- D. Discuss your patrol's dispatch system. Using this scenario, what would your approach be to a responsive patient? What assumptions can be made about the mechanisms of injury?

T. Arrival on the scene

- D. Discuss and review local procedures for arriving at the scene, including sled parking, scene marking and initial approach to the injured skier.

T. Questions and history assessment

- D. Discuss what the patroller has learned from questioning the patient. Can the primary survey be accomplished without touching the patient? Was there too much questioning before the secondary survey? Discuss integrating the assessment process with a single person or multiple person survey technique. What are the implications of a patroller saying "Where do you hurt?"

MOIT THE RESPONSIVE PATIENT TOTEM

- T. *Level of consciousness*
- D. Describe the AVPU scale (*Outdoor Emergency Care*, Table 4.2, page 85), its uses as well as alternatives for assessing level of consciousness. What do changes in level of consciousness indicate to the patroller?

Special attention to orientation and asking questions of time, date, and event provides some degree of information regarding the potential head injury. Discuss the recognition of head injuries and correlations to the level of consciousness. As a general rule, if there has been a loss of recall of the event, then a cerebral concussion of some degree has occurred. When an injured person is unable to recall time and date, this may indicate some underlying metabolic effect, some long-standing condition of the brain, possible drug use, or a more severe injury to the brain.

- T. *Secondary survey*
- D. Discuss whether a complete secondary is necessary for all patients and when and how a secondary survey can be abbreviated. Describe where assessment of vital signs fits in the secondary process. Could the secondary survey be reduced in this scenario? Discuss local procedures for determining the extent of secondary assessment on the hill.

HISTORY AND PHYSICAL EXAMINATION

THE UNRESPONSIVE PATIENT SCENARIO 2

Video counter: 652

KEY DISCUSSION TOPICS

T=Topic D=Discussion points

Refer to General Issues, pages 11-16

- T. Dispatch to a suspected "serious" injury*
- D. Discuss your area procedures for dispatching personnel and equipment to a serious injury.

- T. Arrival on the scene*
- D. Review variations in the initial approach to an unconscious or unresponsive injured skier from the previous responsive patient scenario. Are there differences in marking the scene?

- T. AVPU and Glasgow Coma Scales*
- D. Describe use and indications of the AVPU scale and the Glasgow Coma scale, if used in your area (*Outdoor Emergency Care*, Tables 4.2 and 4.3). Discuss treatment of head injuries including airway and oxygen in the unresponsive patient.

THE UNRESPONSIVE PATIENT

T. Assessing the unresponsive patient

- D. Discuss surface anatomy and correlations to assessing the unresponsive patient. During the primary survey, do you stop and treat? If so, what emergency care is provided? (*Outdoor Emergency Care*, Table 4.5, page 93) Discuss the first impression, the primary survey, and the need for spinal precautions and operational procedures in handling the unresponsive patient. Can or should a patroller accomplish a primary survey before taking skis off? Discuss pros and cons of both. WEC performance objectives should be observed, regardless of technique variations.

How do you determine injuries without patient response? What is the role and accuracy of a pain response in an unresponsive and cold patient?

Discuss which vital signs are needed. Is there a role for capillary refill in assessment? Can vital signs be reliably determined in the cold or shocky patient?

T. Bystanders

- D. As the first patroller on the accident scene, discuss what assignment(s) could be given to the bystander. Discuss advantages and disadvantages of bystander responsibilities.

THE UNRESPONSIVE PATIENT

- T. *Airway maintenance with spinal/trauma*
- D. Describe techniques for airway maintenance. Discuss the use of mechanical airways and the role of using oxygen with trauma patients. Discuss role of bystander in assisting with airway maintenance or oxygen.

- T. *"Scoop and run" cases*
- D. Review local procedures to determine the value of a complete versus abbreviated primary and secondary assessment with unresponsive patients. Review criteria for establishing vital signs and ongoing monitoring during transport to an aid facility.

- T. *Transferring patient to emergency medical services*
- D. What information does your local EMS like to receive prior to transporting the patient to definitive medical care?