Advanced Bleeding Control

Advanced Bleeding Control
Instructor Guide, *Version 8.0*

Purpose of this Guide
This ASHI *Advanced Bleeding Control Version 8.0 Instructor Guide* is solely intended to give information on the presentation and administration of ASHI Advanced Bleeding Control certified training classes. The information in this book is furnished for that purpose and is subject to change without notice.

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Making the Workplace and Community Safer.

PREVIEW

Contents

Program Design

Program Overview

The ASHI Advanced Bleeding Control training program is intended for individuals who desire or are required to become trained in the use of commercial and improvised control devices for the immediate management of severe external bleeding. There are no prerequisites for taking this training. This program can be used for standalone training on bleeding control or as a supplement to basic first aid training. It can be used as an alternative training segment for the existing Control of Bleeding segment in ASHI Basic First Aid.

The goal of this training program is to help students develop the knowledge, skills, and confidence to respond in a severe bleeding emergency. Founded in basic principles of instructional design and learning theory, ASHI promotes a "toolbox" approach to learning. This approach gives Instructors flexibility in both presentation strategies and materials in order to reach students with widely varying abilities in the countless instructional settings that exist in the real world. The Advanced Bleeding Control program is designed to include a significant amount of hands-on skill practice.

Program Structure

ASHI Advanced Bleeding Control contains only core training content.

Core Training Content

The core training content is the minimum knowledge and skill content that is required for certification in ASHI Advanced Bleeding Control.

Third-Party Training Content

Additional training materials that are not produced by HSI may also be used to enhance ASHI Advanced Bleeding Control at the discretion of the training center director. These additional materials may not be used in lieu of ASHI Advanced Bleeding Control materials and may not be used to shorten or otherwise alter the core training content required for certification.

Class Type

There is only one class type for ASHI Advanced Bleeding Control. Regardless if the student is new or has taken Advanced Bleeding Control in the past, each class is taught as if it is initial training.

Class Methods

There are 2 main methods to teaching and certifying students in ASHI Advanced Bleeding Control: instructor-led classroom training and blended learning.

Classroom Training

This is an instructor-led, in-person, classroom-based approach where the core knowledge content is provided using scenario-based video segments or a slide presentation, followed by demonstration of skills and the opportunity for instructor-facilitated student practice.

Blended Learning

This is a mixed-mode approach using both online and in-person learning; core knowledge content is provided in video segments and interactive student exercises online, followed by in-person skills practice and evaluation.

Training Content

Initial Classroom Class

The content of the initial class is divided into lessons. Each lesson provides an approximate length, lists skill and/or knowledge objectives (What Students Should Learn), provides an encouraging reason for learning (Why This Topic Matters), lists required equipment, and describes the necessary instructor activities. The outline and time frame for the Initial Instructor-Led Class are provided in Part 3.

ASHI promotes a "toolbox" approach to learning. This means that various presentation methods and tools may be used by the instructor to meet the knowledge and skill objectives of the course, including skill guides, video, slides, scenario sheets, and performance evaluations. The focus is on gaining the skills and building the confidence to handle an emergency situation. Skills are best learned and retained by repeat practice. Instructors can make the most of class time by limiting lectures to essential knowledge, and focusing on hands-on skill practice.

Four-Step Instructional Approach

In general, ASHI follows a basic four-step instructional approach (some lessons may include fewer or additional steps).

Step 1: Present the Knowledge Content

The program video and the program slide presentation are the primary tools provided to deliver knowledge content for the class.

Featuring scenario-based video segments, the program video provides you with a simple, engaging, and consistent approach to deliver content.

The program slide presentation allows more experienced Instructors to take an active role in presenting content. Slides focus on the key points of information and allow Instructors to highlight content using other delivery methods. Slide notes provide more detail on content. Instructors can use stated video-times as a guide for pacing lesson times when using the presentation.

Key points are also included for each lesson in this Instructor Guide and can be used to emphasize key content throughout the class.

Step 2: Demonstrate Skills

When demonstrating skills, a high-quality performance is essential because students will tend to copy it.

When giving a demonstration, consider using the WHOLE-PART-WHOLE method:

WHOLE: Demonstrate the entire skill, beginning to end, briefly naming each action or step.

PART: Demonstrate the skill again, step-by-step, integrating information and facts while pointing out common errors in technique. Present only the knowledge necessary to for the student to adequately perform the skill. To help, have students look at the appropriate Skill Guide as you demonstrate.

WHOLE: Demonstrate the entire skill again — in real-time — without comment. Perform it without remarks, interruption, or explanation. This helps students get a feel for the tempo of the skill and the opportunity to observe the sequence of actions before they practice.

Step 3: Allow Adequate Time for Students to Practice the Skills

Break students into small groups with the required equipment for the practice. Have one student act as a coach by reading the skill steps from the Skill Guide while another student performs the skill on a bleeding control prop or another student who is playing an injured person. Have students rotate through the roles until all have played each role.

An Instructor should circulate through the classroom, answering questions, correcting errors in technique, and providing constructive feedback and positive reinforcement. Avoid anxiety-producing, perfection-oriented skill checks. A stimulating, but non-threatening, environment is best for learning.

Step 4: Wrap It Up

Ask for and answer questions as briefly and concisely as you can. If available, finish with a short problem-solving scenario to help students recall key information.

The initial class proceeds lesson by lesson until its conclusion. ASHI Advanced Bleeding Control certification cards are issued to those students who have earned them.

Certification Requirements

Instructors must be currently and properly authorized as an ASHI Basic First Aid instructor to issue Advanced Bleeding Control certification cards.

The certification requirement for an initial class requires students to demonstrate skill competency using skill guides, Scenario Sheets, or performance evaluations. A Written Exam is not required for certification unless required by organizational policy.

Important:
WHEN NOT REQUIRED, THE WRITTEN EXAM MAY BE USED AS A PRE-, POST-, OR IN-CLASS ACTIVE LEARNING TOOL. THE INDIVIDUAL'S SCORE ON AN OPTIONAL EXAM MAY NOT BE USED TO WITHHOLD A PROPERLY EARNED CERTIFICATION CARD. WHEN A WRITTEN EXAM IS NOT USED OR REQUIRED, INSTRUCTORS CAN MEASURE COGNITIVE UNDERSTANDING BY INFORMAL OBSERVATION AND QUESTIONING USING THE KNOWLEDGE CHECK FEATURE.

Initial Blended Class

About Blended Learning

Blended learning combines the convenience of online learning with face-to-face, in-class skill practice and evaluation by an authorized Instructor. The platform used for the online portion of the Initial Blended Class is Otis. This web-based learning system allows for a variety of sensory interactions to provide users with a low-stress, easy-to-use, and convenient way to learn the required information. The management of blended training, including scheduling online and face-to-face sessions, is also done through Otis. Students are notified by email of enrollment in the online class. Student progress can be monitored online. For information on system requirements and how to register students for the online portion of the class contact your training center director or email customerservice@hsi.com.

Online Portion

The online portion of a blended training class covers the essential cognitive content for the class using program video segments and interactive exercises. When a student successfully completes the online portion of the class, a Recognition of Completion certificate will be made available to the student for printing and the completion will be recorded within Otis. Successful completion of the online portion is required to attend the face-to-face portion of the class for skills practice and evaluation with an Instructor.

Important:
COMPLETION OF THE ONLINE PORTION ALONE DOES NOT RESULT IN CERTIFICATION. THE ONLINE PORTION IS USEFUL FOR KNOWLEDGE ACQUISITION, BUT IT DOES NOT PROVIDE ANY BENEFIT IN THE PERFORMANCE OF SKILLS. ONLINE TRAINING MUST BE SUPPLEMENTED WITH HANDS-ON PRACTICE.

Face-to-Face Portion

The face-to-face portion of a blended class focuses on the development of competent skills through hands-on practice. Required activities of the face-to-face portion of the Initial Blended Class include performing instructor demonstrations and student practices, completed just as in an Initial Instructor-Led Classroom Class. The outline and time frame for the classroom portion of the Initial Blended Class are provided in Part 4. The class proceeds lesson by lesson until its conclusion.

Instructor Demonstration

The instructor performs a demonstration of the skill, using the Whole-Part-Whole method.

Student Practice

Following the instructor demonstration, allow adequate time for students to practice the skill.

Important:

THE FACE-TO-FACE PORTION OF THE BLENDED CLASS IS NOT INTENDED TO BE A SIMPLE SKILLS CHECK OFF. THIS PORTION OF THE CLASS INCLUDES BOTH PRACTICE AND EVALUATION.

Certification Requirements

The certification requirements for the Initial Blended Class are the same as for an Initial Instructor-Led Classroom Class. ASHI Advanced Bleeding Control certification cards are issued to those students who have earned them.

Instructional Tools

Instructor Guide

This ASHI Advanced Bleeding Control Instructor Guide, video segments, slides, scenario sheets, performance evaluations, and online training provides the materials necessary for a properly qualified and authorized Instructor to conduct the Initial and Blended classes.

Instructor/Training Center Portal in Otis

The instructor/training center portal in Otis provides access to the most current support documents. Please see Otis for the most up-to-date information. Login to Otis at otis.hsi.com/login. If you need assistance logging into Otis, call 877-440-6049 to speak with technical support.

Student Book

The ASHI Advanced Bleeding Control Student Book is an up-to-date resource that covers the core knowledge and skill content required for certification. Each participant should have a current print or digital Student Book readily available during and after the class.

Program Video

The ASHI Advanced Bleeding Control program video is a scenario-based visual learning tool. Video segments cover all training content. The video is available on digital video disc (DVD), online as a component of the blended class, and as an Otis-powered desktop or mobile application.

Program Slide Presentation

A PowerPoint® slide presentation is provided as an alternative visual tool to the program video. Designed for more experienced Instructors, the presentation highlights the key points of the program content to help guide Instructors in class. The program slide presentation file is available in Otis.

Skill Guides

Skill guides combine words and photographs of the correct steps of a skill in the proper sequence. They are visual, easy-to-use instructional tools to be used by the Instructor as a teaching aid and by students during skill practice. Skill guides are included in the Student Book and integrated into this Instructor Guide.

Performance Evaluation Sheet

Instructors can use a performance evaluation sheet for a more formal approach to evaluating required skills. Performance evaluation is a scenario-based assessment process that provides sound, fair, consistent, uniform, objective, and reliable documentation of student competency according to the skill criteria. The performance evaluation sheet and instructions for its use are available in Otis and are included in the Otis-powered desktop or mobile application.

Written Exam

Unless required by organizational policy, it is not required for students to take and pass the Written Exam. However, the Written Exam documents are provided as an instructional tool and can be used to check student learning and effective retention of knowledge objectives.

Two Written Exam versions, an answer sheet, and answer keys are included in the program documents in Otis.

PART 2:

CLASS REQUIREMENTS AND ADMINISTRATION

PREVIEW

Class Requirements

Before Class

A few days before the class, confirm the date, location, and number of students. Ensure you have the following materials (see Equipment List for detailed information):

- Advanced Bleeding Control Instructor Guide
- Advanced Bleeding Control Student Books
- Dressing pads, roller bandages
- Bleeding control props (optional)
- Commercial pressure bandage training devices (optional)
- Commercial tourniquet training devices
- Improvised tourniquet materials (optional)
- Commercial packed dressing training devices (optional)
- Improvised packed dressing materials (optional)
- Disposable gloves, small plastic bags, tape
- Audio visual equipment and cables
- Class paperwork

Review this Instructor Guide, paying particular attention to the outline and time frame for the class you are teaching (Initial or Blended). Review the video or slides and key points for each lesson, including any supplemental content to be added. Review all of the included Instructor Notes to see if you need to adjust your approach to training. Familiarize yourself with the Student Book.

Learning Environment

The ideal learning environment is comfortable, efficient, and distraction-free with sufficient space, seating, resources, and equipment. Instructors should take reasonable efforts to ensure a physically safe, comfortable, and appropriate learning environment. The room should be well lit, well ventilated, and comfortable in temperature. Avoid cramped classroom setups where possible. Instructors must often create a makeshift classroom out of a noisy shop floor, poorly lit cafeteria, or cramped conference room. Such challenges should be anticipated and the learning environment be made as favorable as possible.

Classroom Space

Advanced Bleeding Control has been developed for a maximum class size of 10 students to 1 instructor; the recommended class size is 6 students to 1 instructor. Personal supervision is necessary to ensure effective facilitation, assistance, guidance, and supervision. Additional equipment and the assistance of other authorized Instructors are recommended for all skill sessions where possible.

The room should be large enough to accommodate chairs, tables, and skill practice space for up to 10 students. Advanced Bleeding Control requires hands-on practice and evaluation of skills. Ensure that adequate and appropriate space for these activities is provided. Allow 15 to 17 square feet per student whenever possible. Avoid lecture hall-type of arrangements. A sample classroom layout is available in Otis.

Classroom Safety

When demonstrating or practicing the use of a pressure bandage or tourniquet on another person, do not bind the bandage or tourniquet down tight against the person's limb. Inform students before practice.

Make sure there are no obvious hazards in the classroom, such as extension cords that can be tripped over. Discourage students from smoking, eating, or engaging in disruptive or inappropriate behavior. Have an emergency response plan in case of serious injury or illness, including evacuation routes from the classroom. Be aware of and share with students the location of the nearest bathrooms, exit, phone, first aid kit, AED, fire alarm pull station, and fire extinguisher.

NOTICE:
WARN STUDENTS TO AVOID AWKWARD OR EXTREME POSTURES OF THE BODY. IMPROPER LIFTING AND MOVING IS A LEADING CAUSE OF BACK INJURY.

ALL STUDENTS MUST PAY ATTENTION TO PROPER LIFTING AND MOVING TECHNIQUES DURING PRACTICE.

Warn students that classroom activities involving lifting and moving that may aggravate previous back injuries and they should not practice moving simulated victims if they have a history of back problems.

Student Illness and Other Emergencies

Advise students to not attend class if they have an illness or signs of one, such as influenza or a fever. Training centers should provide reasonable accommodation to students to make up class time or skill sessions. If a student has a medical emergency during a session, instructors should provide the appropriate first aid care and activation of EMS.

Equipment and Materials List

Some equipment and materials are required for teaching, while other materials are optional (like the Written Exam). Some materials and equipment are recommended but not required. Use the lists below to prepare the right materials and equipment for the training you are delivering.

Core Content

Required

- Television with DVD player, or computer with speakers, large monitor, or projection screen
- Dressing pads, roller bandages
- Commercial tourniquet training devices
- Non-latex disposable gloves
- Advanced Bleeding Control Instructor Guide (print or digital), 1 for each instructor
- Advanced Bleeding Control Student Books, 1 for each student (print or digital)
- Advanced Bleeding Control program video, DVD or Otis-powered desktop, mobile application, or Advanced Bleeding Control slide presentation, 1 for each class
- Advanced Bleeding Control certification cards, 1 for each student who fulfills the requirements (print or digital)
- Class roster, 1 for each class (print or digital)

Optional

- Bleeding control props
- Commercial pressure bandage training devices
- Improvised tourniquet materials
- Commercial packed dressing training devices
- Improvised packed dressing materials

May Be Required (Regulatory Agency)

- Written exams A and B, 1 version for each student (print)
- Written exams answer sheets, 1 for each student (print)
- Written exams answer keys, A and B, 1 for each instructor (print)
- Performance Evaluation Sheets, 1 for each student (print or digital)
    - Caring for Severe External Bleeding

Recommended

- Scenario Sheets, 1 for each group of 2-3 students (print or digital)
    - Caring for Severe External Bleeding
- Rate Your Program Class Evaluations, 1 per student.

- Pens and pencils, 1 for each student when Written Exam is administered
- Blankets or mats
- Name tags or tent cards, 1 for each student
- Spare projector bulb (as needed)
- Extension cord (as needed)
- Whiteboard with dry erase pens and eraser, if available
- Large black markers for student name tags or tent cards
- Large envelope for class paperwork, including Written Exam answer sheets when required

Conducting a Class

1. Arrive early. Give yourself plenty of time to get organized.
2. Circulate a sign-in sheet or the Class Roster. Be sure all students sign in.

During Class

1. Start on time. Briefly cover class expectations: class goal, certification requirements, classroom safety, facilities, mobile phone use, and breaks.
2. Stay on track. Keep lessons within their time limits. End discussions when they are not productive or stray off topic.
3. At the beginning of each lesson, briefly communicate the knowledge and skill objectives, and explain why this topic matters.
4. Show the video or slide presentation (where required) and emphasize the key points as needed. Ask for and briefly answer any questions.
5. Facilitate student practices. Answer questions and offer constructive guidance and positive feedback as appropriate.
6. Upon class completion, issue Advanced Bleeding Control certification cards to those individuals who earned them.
7. Offer and collect students' Rate Your Program evaluations.

After Class

Complete and sign the Class Roster. If used, complete and sign performance evaluations.

Administration

Skill Evaluation

The Instructor must evaluate each student for skill competency — the ability of the individual to do the skill adequately. Each student must be able to demonstrate the skills in the proper sequence according to the skill criteria as it appears in a skill guide, Scenario Sheet, performance evaluation sheet, or program standard.

Skill Remediation

As time permits, the remediation, or the correction of inadequate skill performance, should be offered to students who are experiencing skill difficulties.

Generally, address student skill problems throughout the class using the gentle correction of skills and positive coaching. If possible, assist students privately during breaks, lunch, or at the end of the class.

Be polite, considerate, encouraging, and professional when remediating skills.

If the student is unable or unwilling to perform skills, you can issue the student a Recognition of Participation document, especially in cases where knowledge or experience is a greater goal than certification for the student.

If a student needs certification and requires more remediation than can be provided during a class, recommend the student attend another training class.

Written Exam

A Written Exam is not required for certification unless required by organizational policy.

Evaluation of the core knowledge objectives in Advanced Bleeding Control is normally accomplished by informal observation and questioning throughout a training class.

When a Written Exam is used, adequate time must be added to the class to complete the exam. Two versions of the Written Exam, along with instructions for their use are included online in Otis. An exam answer sheet is also available to help minimize the amount of paper used. Exam answer keys are provided for both exam versions to aid in exam correction.

Each student must obtain a passing score of 72% or better. If a student does not pass the first Written Exam, he or she must take the alternative version. If a student does not pass the alternative version, he or she must retake the class.

ASHI uses an open-book approach to written exams. Open-book exams emphasize critical thinking and problem solving over recall of memorized facts and decrease test anxiety. Open-book exams mean that students may use reference materials to take exams when they are required. Reference materials include any notes taken during the class as well as the print or digital ASHI Student Book.

Although students may use reference materials while taking the exam, they should not be allowed to openly discuss the exam with other students or the instructor. Their answers should be their own. Instructors may read aloud the exam to the students as necessary without providing the answers.

Consider the following tips to prevent cheating if students take the Written Exam.

1. Before distributing the exams, remind students those who are caught cheating will not receive certification cards.
2. Request a photo ID if you suspect someone may be taking the test in place of a student. Taking an exam for someone else constitutes cheating.
3. Inform students there is to be no talking during the exam. If a student has a question during the exam, ask that student to raise a hand and you will go to him or her.
4. For extra precaution, use both versions of the exam, alternating them between students to make copying from another student more difficult.
5. Walk around the room throughout the exam. Do not do other work while monitoring the exam.

Criteria for Certification

When the instructor determines a student has demonstrated adequate knowledge and skill competency, the instructor may issue a certification card (print or digital).

Certification means verification that on the indicated class completion date the student demonstrated achievement of the required knowledge and hands-on skill objectives to the satisfaction of a currently authorized ASHI Instructor or Instructor Trainer.

Certification does not guarantee future performance, or imply licensure or credentialing. Certification is documented by the legitimate issuance of a correctly completed ASHI certification card.

Important:

SEE THE MOST RECENT VERSION OF THE HSI TRAINING CENTER ADMINISTRATION MANUAL (TCAM) FOR COMPLETE PROGRAM STANDARDS REGARDING CERTIFICATION. THE TCAM IS AVAILABLE AT HTTP://WWW.HSI.COM/QUALITYASSURANCE.

Class Documentation

All of the class documentation forms used in the ASHI Advanced Bleeding Control training program are available for download in the documents section of Otis. A complete list of those forms can be found in the Appendix of this Instructor Guide.

There may be periodic revisions or updates to the class documentation forms. Refer to Otis for the most current version.

Class Roster

The Class Roster is the principal record of training. The roster verifies student completion of the class. It also documents the results of the Written Exam and remediation, if used during training. A complete, accurate, and legible Class Roster signed by the authorized Instructor or submitted online through Otis is required for every training class. The Class Roster must be promptly delivered to the training center responsible for the class or submitted online through Otis. The training center is required to keep clear, legible, and orderly class records (paper or digital) for no less than 3 years.

Performance Evaluation Sheet

Instructors can use a performance evaluation sheet for a more formal approach to evaluating required skills. Performance evaluation is a scenario-based assessment process that provides sound, fair, consistent, uniform, objective, and reliable documentation of student competency according to the skill criteria.

A performance evaluation sheet signed by the Instructor should be considered important potential evidence demonstrating instructor evaluation of student skill competency. Although a secondary record of training, a performance evaluation sheet may be required by state regulation or organizational policy.

When used, signed performance evaluation sheets must be promptly delivered to the training center responsible for the class.

Rate Your Program Course Evaluation

Encouraging class participants to provide feedback and then using that feedback to improve instruction is an essential aspect of any quality educational effort. HSI requires that students be given the opportunity to evaluate any ASHI class using the Rate Your Program course evaluation form.

When used, course evaluations must be promptly delivered to the training center responsible for the class.

Additionally, class participants may provide Rate Your Program feedback directly to HSI http://www.hsi.com/rateyourprogram. All information obtained by HSI through this process is reviewed and shared with the training center, Instructor, or Instructor Trainer as appropriate.

PART 3:
INITIAL TRAINING, CLASSROOM

PREVIEW

Initial Class Outline and Time Frame

Lesson	Lesson Title	Knowledge Objectives	Skill Objectives	Approximate Length (min)
Introduction	Describe the purpose of the program, health and safety precautions, and conduct a warm up exercise.			5
1	Severe External Bleeding	Describe the importance of the bystander role in the management of severe external bleeding.		6
2	Physiology of Bleeding	Explain the physiologic relationship of bleeding to the use of oxygen in the body.		5
3	Direct Pressure	Describe how to control severe external bleeding using direct pressure.	Correctly demonstrate how to control severe external bleeding using direct pressure.	10
4	Pressure Bandages	Describe how to control severe external bleeding using a pressure bandage.	*(Optional)* Correctly demonstrate how to control severe external bleeding using a pressure bandage.	5
5	Tourniquets	Describe how to control severe external bleeding using a tourniquet.	Correctly demonstrate how to control severe external bleeding using a tourniquet.	16
6	Packed Dressings	Describe how to control severe external bleeding using a packed dressing.	*(Optional)* Correctly demonstrate how to control severe external bleeding using a packed dressing.	5
7	Caring for Severe External Bleeding	Describe the steps for controlling external bleeding in an emergency.	Correctly demonstrate how to conduct a primary assessment and control severe external bleeding using direct pressure and a tourniquet.	18
8	Being Prepared	Explain how to prepare for a severe external bleeding emergency.		5

EVALUATION

Skill and Performance Evaluation	*Skill evaluation, required. Performance evaluation, optional, unless required.[a]*	0–30
Written Exam	*Optional, unless required.[b]*	0–15

CONCLUSION

Documentation and Certification	*Verify class documentation and issue certification cards to students who earned them.*	5+
	Total Time[c,d]	75

[a] At a minimum, skill competency is visually evaluated by Instructors during the required small group practices for the class. A performance evaluation can be used to provide a more formal approach to skill evaluation. When a performance evaluation is not required by organizational policy, it is optional.

[b] When a Written Exam is not required by organizational policy, it is optional. The exam may be used before, during, or after class as an active learning tool; however, the participant's score on an optional exam may not be used to withhold a properly earned certification card. See Written Exam on page 8.

[c] Class size, class location, instructor-to-student ratios, the variety of equipment used, and other factors will affect the actual schedule.

[d] Projected times for lessons take into account video run times, brief introductions and answers to questions, and demonstrations and student practices for one type of device per lesson. Lesson times are influenced by class preparation, available equipment, and instructor efficiency. These could increase the time needed to meet the core learning objectives. Lesson times do not include optional skills demonstrations and practices. Performance of optional skills demonstrations and practices will add to overall class time.

Severe External Bleeding

Class Method: Initial

Class Type: Classroom

Length: 6 minutes

Why This Topic Matters

Immediate bystander care for severe external bleeding may provide the only chance for an injured person to survive.

What Students Should Learn

After completing this lesson, the student should be able to state or identify the following:

• The importance of the bystander role in the management of severe external bleeding

Equipment

• Television with DVD player or computer/tablet with speakers, large monitor, or projection screen. (Will be used throughout class.)

Instructor Activities

1 Present Knowledge Content — Video (approx. 3:30) or Slides

• Emphasize key points as needed.
   - ✓ Traumatic injury is one of the leading causes of death for people under 50 years of age in the United States. A large portion of those deaths are from severe bleeding.
   - ✓ Bleeding is the most treatable cause of death due to trauma.
   - ✓ Common mechanisms for traumatic injuries include the following:
      – Falls from great height
      – Significant blows to the body
      – Motor vehicle crashes
      – Slicing or stabbing from sharp objects
      – Firearm shootings
      – Explosions and shrapnel
   - ✓ Death from severe bleeding can occur rapidly. Survival is primarily dependent on how quickly bleeding is controlled.
   - ✓ Commercial Bleeding Control Devices
      – Military experience in the past few decades has guided the adoption and use of commercial bleeding control devices in non-military settings to improve the speed at which serious bleeding is stopped.
   - ✓ Pressure bandages
      – Designed to quickly and effectively provide the well-aimed direct pressure needed to control heavy bleeding.
   - ✓ Tourniquets
      – Found to be very effective in controlling heavy bleeding.
      – Previous fears of complications had prevented widespread use, but military evidence has shown that complications are actually minimal and the benefits far outweigh the risk.
   - ✓ Packed dressings
      – Commercial packed dressings, including hemostatic dressings, have proved to be beneficial when other bleeding control measures don't work or cannot be applied.

✓ With military use and research that supports the successful use of these devices, more commercial products are available for non-military use.

  – Many emergency medical services (EMS) systems and law enforcement personnel have implemented the standard use of commercial bleeding control devices.

✓ Start Treatment Immediately

  – The sooner bleeding is controlled, the more likely it is an injured person will survive.

  – Similar to the use of CPR and AEDs for sudden cardiac arrest, the treatment for severe bleeding is best started immediately by the nearest person able to help.

  – Lay providers are now being encouraged to be trained to use commercial products.

- Ask for and briefly answer any questions.
- Refer students to pages 1–2 of the Student Book.
- Use the Knowledge Check activity to evaluate and increase retention.

2 Wrap It Up

- Ask for and answer any questions before moving on to the next lesson.

Knowledge Check

Why is it important to control bleeding as soon as possible?

Death from severe bleeding can occur rapidly. Survival is primarily dependent on how quickly bleeding is controlled.

Severe External Bleeding

Traumatic injuries are unexpected. They can happen at any time and in any place. Traumatic injury is one of the leading causes of death for people under 50 years of age in the United States.[1] A large portion of those deaths are from severe bleeding. Bleeding is the most treatable cause of death due to trauma.

Common mechanisms for traumatic injuries include the following:

- Falls from great height
- Significant blows to the body
- Motor vehicle crashes
- Slicing or stabbing from sharp objects
- Firearm shootings
- Explosions and shrapnel

Recent mass casualty events have highlighted the need for improvement in immediate care for severe bleeding due to traumatic injury.
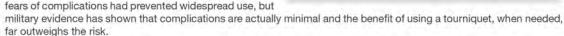
Death from severe bleeding can occur rapidly. Survival is primarily dependent on how quickly bleeding is controlled.

Commercial Bleeding Control Devices

Military experience in the past few decades has guided the adoption and use of commercial bleeding control devices such as pressure bandages, tourniquets, and packed dressings in non-military settings to improve the speed at which serious bleeding is stopped.

Pressure bandages: Commercial pressure bandages are designed to quickly and effectively provide the well-aimed direct pressure needed to control heavy bleeding.

Tourniquets: Commercial tourniquets have been found to be very effective in controlling heavy bleeding. Previous fears of complications had prevented widespread use, but military evidence has shown that complications are actually minimal and the benefit of using a tourniquet, when needed, far outweighs the risk.

Packed dressings: Commercial packed dressings, including hemostatic dressings, have proved to be beneficial, especially when other bleeding control measures such as direct pressure and tourniquets don't work or cannot be applied.

With military use and research that supports the successful use of these devices, more commercial products are available for non-military use. For example, many emergency medical services (EMS) systems have implemented the standard use of commercial bleeding control devices. Law enforcement personnel, who often deal with traumatic injury situations involving civilians or officers, have also adopted a more standardized approach to the use of these devices.

Immediate Treatment

The sooner bleeding is controlled, the more likely it is an injured person will survive. Similar to the use of CPR and AEDs for sudden cardiac arrest, the treatment for severe bleeding is best started immediately by the nearest person able to help.

Lay providers are now being encouraged to be trained to use the same commercial products utilized by EMS, fire departments, and law enforcement.

Knowledge Check
Why is it important to control bleeding as soon as possible?

Pressure Bandages

Class Method: Initial

Class Type: Classroom

Length: 7 minutes, allow additional time if conducting optional demonstration and practice

Why This Topic Matters

A pressure bandage provides a more efficient approach to direct pressure and increases the likelihood it will be effective in controlling bleeding.

What Students Should Learn

After completing this lesson, the student should be able to state or identify the following:

• How to control severe external bleeding using a pressure bandage

After completing this lesson, the student should be able to demonstrate the following:

• (Optional) How to control severe external bleeding using a pressure bandage

Equipment

• (Optional) Commercial pressure bandage training devices, dressing pads, roller bandages, disposable gloves, bleeding control props

> **Instructor Note**
> A bleeding control prop is a device that is designed to simulate a human limb and allows for the application of commercial or improvised bleeding control devices. There are commercial devices available, or they can be improvised.

Instructor Activities

> **Instructor Note**
> Present both the lesson video or slides and at least one selected pressure bandage demonstration video or slides. If the pressure bandage available to students does not have a specific demonstration video or slides, use the generic version.

1 Present Knowledge Content — Videos (approx. 3:00) or Slides

• Emphasize key points as needed.
  - ✓ A bandage or a wrap designed to hold a dressing in place can be used as long as it maintains enough pressure to control bleeding.
    – For minor and moderate bleeding, a simple roller bandage can be used.
  - ✓ Commercial Pressure Bandages
    – A hard structure embedded in the bandage exerts focused additional pressure directly on a bleeding site.
    – Place the hard, embedded piece over the point of bleeding.
    – Wrap this piece tightly to place more pressure directly under it than anywhere else under the wrap.
    – Monitor it for effectiveness. A pressure bandage only needs to apply enough pressure to stop bleeding.
    – Do not to apply too much pressure that could prevent blood flow to the body beyond the bandage.
    – Make note and alert EMS personnel if the skin beyond the bandage becomes cool to the touch, bluish, or numb.

✓ Improvised Pressure Bandage
  – Place a roll of spooled gauze or folded pad directly over the point of bleeding and wrap it tightly in place.
- Ask for and briefly answer any questions.
- Refer students to pages 8–14 of the Student Book.
- Use the Knowledge Check activity to evaluate and increase retention.

Instructor Note

Demonstration and student practice for pressure bandages is optional, depending on their availability to students for real-life use. If conducting optional pressure bandage skills demonstration and practice, present device-specific video or slides for selected pressure bandage type before doing so. When available, demonstration and practice of the pressure bandage that would be used is highly recommended. If the pressure bandage available to students does not have a specific skill guide, use the generic skill guide or any skill guide that is very similar to the pressure bandage that will be used.

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2 Demonstrate Skills (Optional)
- Provide WHOLE-PART-WHOLE demonstration of a selected Skill Guide
  – Skill Guide 2 — Using a Pressure Bandage
  – Skill Guide 3 — Using the Emergency Bandage™ (Israeli)
  – Skill Guide 4 — Using the Olaes® Modular Bandage
  – Skill Guide 5 — Using the H-Bandage
  – Skill Guide 6 — Using the Air Wrap® 4" Compression Bandage
  – Skill Guide 7 — Using an Improvised Pressure Bandage
- Demonstrate the whole skill with brief comments, demonstrate again step-by-step with comments, and demonstrate the whole skill again without comment.

3 Student Practice (Optional)
- Arrange students in pairs or in small groups. Have one student act as a coach by reading the skill steps from the selected skill guide while another student performs how to use the selected pressure bandage on another person or a bleeding control prop.
- Have students rotate through the roles until all have played each role.
- Circulate through the groups looking for competent performance. Use positive coaching and gentle correction to improve student skills.

4 Evaluation (Optional)
- Confirm each student demonstrates the correct steps and decision-making tasks in the proper sequence as defined by the skill criteria in the skill guide.

5 Wrap It Up
- Ask for and answer any questions before moving on to the next lesson.

Knowledge Check

How does a pressure bandage work to control bleeding?

A pressure bandage exerts focused additional pressure directly on a bleeding site.

Pressure Bandages

A bandage or a wrap designed to hold a dressing in place can be used as long as it maintains enough pressure to control bleeding. For minor and moderate bleeding, a simple roller bandage will most likely accomplish this.

Commercial Pressure Bandages

For heavy bleeding, consider the use of a commercial pressure bandage. A pressure bandage is specially designed to exert focused additional pressure directly on a bleeding site. This is accomplished by the use of a hard structure embedded in the bandage.

When using a commercial pressure bandage, place the hard embedded piece over the point of bleeding. Wrap this piece tightly to place more pressure directly under it than anywhere else under the wrap.

Using Pressure Bandages

Once in place, monitor a pressure bandage for effectiveness. A pressure bandage only needs to apply enough pressure to stop bleeding.

Be careful not to apply too much pressure that could prevent blood flow to the body beyond the bandage. Make note and alert EMS personnel if the skin beyond the bandage becomes cool to the touch, bluish, or numb.

Improvised Pressure Bandage

If you do not have a commercial pressure bandage, you can improvise one by placing a roll of spooled gauze or folded pad directly over the point of bleeding and wrapping it tightly in place.

Knowledge Check

How does a pressure bandage work to control bleeding?

Using a Pressure Bandage

Place Bandage

- Unwrap bandage to expose pad.
- Place pad on wound with hard pressure piece positioned to end up over the point of bleeding.

Wrap Bandage

- Wrap elastic bandage around limb, overlapping first wrap to secure pad and pressure piece in place.
- Tightly apply additional wraps on top of pressure piece, using counter pressure to keep limb from rolling. Use twists in bandage to provide more focused pressure.
- Apply enough pressure to stop bleeding.

Secure Bandage

- Latch hook at end of bandage on one of previous wraps to secure bandage in place.

Monitor Bandage

- Check frequently to ensure bleeding remains controlled.

PART 4:
INITIAL TRAINING, BLENDED

PREVIEW

Blended Class Outline and Time Frame

Lesson	Lesson Title	Skill Objectives	Approximate Length (min)
Introduction	Describe the purpose of the program, health and safety precautions, and conduct a warm up exercise.		5
1	Direct Pressure	Correctly demonstrate how to control severe external bleeding using direct pressure.	8
2	Pressure Bandages	*(Optional)* Correctly demonstrate how to control severe external bleeding using a pressure bandage.	0–10
3	Tourniquets	Correctly demonstrate how to control severe external bleeding using a tourniquet.	12
4	Packed Dressings	*(Optional)* Correctly demonstrate how to control severe external bleeding using a packed dressing.	0–10
5	Caring for Severe External Bleeding	Correctly demonstrate how to conduct a primary assessment and control severe external bleeding using direct pressure and a tourniquet.	15

EVALUATION

Skill and Performance Evaluation	*Skill evaluation, required. Performance evaluation, optional, unless required.*[a]	0–30
Written Exam	*Optional, unless required.*[b]	0–15

CONCLUSION

Documentation and Certification	*Verify class documentation and issue certification cards to students who earned them.*	5+
	Total Time[c,d]	40–60

[a] At a minimum, skill competency is visually evaluated by instructors during the required small group practices for the class. A performance evaluation can be used to provide a more formal approach to skill evaluation. When a performance evaluation is not required by organizational policy, it is optional.

[b] When a Written Exam is not required by organizational policy, it is optional. The exam may be used before, during, or after class as an active learning tool; however, the participant's score on an optional exam may not be used to withhold a properly earned certification card. See Written Exam on page 8.

[c] Class size, class location, instructor-to-student ratios, the variety of equipment used, and other factors will affect the actual schedule.

[d] Projected times for lessons take into account brief introductions and answers to questions, and demonstrations and student practices for one type of device per lesson. Lesson times are influenced by class preparation, available equipment, and instructor efficiency. These could increase the time needed to meet the core learning objectives. Performance of optional skills demonstrations and practices will add to overall class time.

Instructor Note:

The self-directed online portion of a blended training class presents the same cognitive content as in an initial non-blended class. Students are required to successfully complete all lessons assigned by the training center. To verify completion, students should print a Recognition of Completion document and bring it to the face-to-face skills session. Completion can also be verified by the training center within Otis. It is highly recommended that instructors take the online portion of the blended class they are teaching the skills for, in order to be familiar with the content provided.

The face-to-face skills session of a blended class is not intended to be a skills check off. The skills session includes both skill practice and evaluation. Use of the video and/or the slide presentation in the skills session is optional.

Sources

Singletary EM, Zideman DA, et al., Part 9: first aid: 2015 International Consensus on First Aid Science with Treatment Recommendations. *Circulation.* 2015;132(suppl 1):S269–S311.

Singletary EM, Charlton NP, et al., Part 15: first aid: 2015 American Heart Association and American Red Cross Guidelines Update for First Aid. *Circulation.* 2015;132(suppl 2):S574–S589.

American College of Surgeons Bulletin; Hartford Consensus Compendium; September 2015; Volume 100, Number 1S

National Association of Emergency Medical Technicians (NAEMT); *Tactical Combat Casualty Care (TCCC) Guidelines for Medical Personnel,* January 31, 2017, available at https://www.naemt.org/education/naemt-tccc/tccc-mp-guidelines-and-curriculum

https://www.dhs.gov/stopthebleed (12/17)

https://community.fema.gov/until-help-arrives (12/17)

Endnotes

1. https://www.cdc.gov/injury/wisqars/LeadingCauses.html (12/17)

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