

Alternate Schedule for Day 2 of Student Course Rotation for Skills Stations IX, X, XI, and XII

GOAL: Maintain the student-to-faculty ratio at 4:1 during Skills Stations IX thru XII in a Student Course conducted for 17 to 24 active participants.

Four skills stations are conducted late morning/early afternoon on the second day of the ATLS® Student Course. If the course is conducted for more than 17 to 24 active participants, additional sets of Skills Stations IX, X, XI, and XII must be added to maintain the student-to-faculty ratio at 4:1. However, the ACS ATLS® Regional Coordinators have identified many courses in which the 4:1 student-to-faculty ratio is not being maintained and additional sets of skills stations are not being added. This infracts the educational design of the course and existing policy established by the ACS Committee on Trauma.

The ATLS® Subcommittee has approved the attached alternate rotation schedule for Stations IX through XII so additional sets of Skills Stations IX through XII do not have to be added. When a course is conducted for 17 to 24 students, the Secondary Survey Demonstration can become a skills station (total of 5 skills stations). This method has been piloted several courses with favorable results and evaluations. Initial assessment scenarios are used, provided they are different than those used for the Initial Assessment Skills Station.

Remember, 40 minutes is the minimum time frame per rotation for Station IX, X, XI, XII, and the Secondary Survey Skills Station. These stations are conducted as separate sessions and are not combined, eg, Station XI with Station XII.

Note: Two alternate schedules are attached. Both are prepared using the same concept, 1 demonstrates a shorter break period. Student and Faculty evaluation comments need to be added to the participants' evaluation of the course.

Secondary Survey Skills Station Outline and Instructor Guide: The skills station guide is attached as well. This guide is set up just like all other skills stations in the ATLS® Program.

If you have any questions, please contact your ACS ATLS Regional Coordinator.

DAY 2, ATLS STUDENT COURSE SCHEDULE

7:00 am - 7:40 am	Head Trauma Instructor 5
7:40 am - 8:20 am	Spine and Spinal Cord Trauma Instructor 6
8:20 am - 8:45 am	Musculoskeletal Trauma Instructor 7
8:45 am - 12:45 am	PRACTICAL SKILLS STATIONS Station IX, Head and Neck Trauma Instructor 5 Station X, X-ray Identification of Spine Injuries Instructor 6 Station XI, Spinal Cord Injury Assessment and Management Instructor 8 Station XII, Musculoskeletal Trauma Assessment and Management Instructor 7
	Secondary Survey Skills Station
12:45 pm - 1:15 pm	Lunch
1:15 pm - 1:45 pm	Injury Due to Burn and Cold Instructor 8
1:45 pm - 2:05 pm	Pediatric Trauma Instructor 6
2:05 pm - 2:20 pm	Trauma in Women Instructor 7
2:20 pm - 2:40 pm	Transfer to Definitive Care Course Director

Day 2, ATLS Student Course

PRACTICAL SKILLS ROTATION SCHEDULE for 24 STUDENTS

<u>Group A</u>	<u>Group B</u>	<u>Group C</u>	<u>Group D</u>	<u>Group E</u>	<u>Group F</u>
Student #1	Student #5	Student #9	Student #13	Student #17	Student #21
Student #2	Student #6	Student #10	Student #14	Student #18	Student #22
Student #3	Student #7	Student #11	Student #15	Student #19	Student #23
Student #4	Student #8	Student #12	Student #16	Student #20	Student #24

Faculty for Station IX: Instructor #5
 Faculty for Station XI: Instructor #7
 Faculty for Secondary Survey Demonstration: Instructor #1

Faculty Member for Station X: Instructor #6
 Faculty Member for Station XII: Instructor #8

Groups	Time and Activity					
	8:45 - 9:25	9:25 - 10:05	10:05 - 10:45	10:45 - 11:25	11:25 - 12:05	12:05 - 12:45
A	Station IX	Station X	Station XI	Station XII	Secondary Survey	Break
B	Station X	Station XI	Station XII	Secondary Survey	Break	Station IX
C	Station XI	Station XII	Secondary Survey	Break	Station IX	Station X
D	Station XII	Secondary Survey	Break	Station IX	Station X	Station XI
E	Secondary Survey	Break	Station IX	Station X	Station XI	Station XII
F	Break	Station IX	Station X	Station XI	Station XII	Secondary Survey

Day 2, ATLS Student Course

PRACTICAL SKILLS ROTATION SCHEDULE for 20 STUDENTS

Group A (Students #1-#4)

Group B (Students #5-#8)

Group C (Students #9-#12)

Group D (Students #13-#16)

Group E (Students #17-20)

Room	103 <u>Group A</u>	103 <u>Group B</u>	107 <u>Group C</u>	111 <u>Group D</u>	113 <u>Group E</u>
	Head & Neck Trauma Assessment	Secondary Survey Skills Station	X-Ray Identification of Spine Injuries	Spinal Cord Injury and Management	Musculoskeletal Trauma Assessment and Management
Instructor:	Instructor #5	Instructor #1	Instructor #6	Instructor #7	Instructor #8
8:45am-9:25am	STUDENTS 1-4	STUDENTS 5-8	STUDENTS 9-12	STUDENTS 13-16	STUDENTS 17-20
9:25am-10:05am	STUDENTS 17-20	STUDENTS 1-4	STUDENTS 5-8	STUDENTS 9-12	STUDENTS 13-16
10:05am-10:45am	STUDENTS 13-16	STUDENTS 17-20	STUDENTS 1-4	STUDENTS 5-8	STUDENTS 9-12
10:45am-10:55am	BREAK	BREAK	BREAK	BREAK	BREAK
10:55am-11:35am	STUDENTS 9-12	STUDENTS 13-16	STUDENTS 17-20	STUDENTS 1-4	STUDENTS 5-8
11:35am-12:15pm	STUDENTS 5-8	STUDENTS 9-12	STUDENTS 13-16	STUDENTS 17-20	STUDENTS 1-4

Skills Station: Secondary Survey

Essential Resources and Equipment

This list includes the required equipment to conduct this skills session in accordance with the stated objectives for and intent of the procedures outlined. Additional equipment may be used provided it does not detract from the stated objectives and intent of this station, or from performing the procedure in a safe method as described and recommended by the ACS Committee on Trauma.

1. Live patient model
2. Case scenarios
3. Blanket and sheet (or table padding and covering for patient comfort)
4. Makeup and moulage (see individual scenarios)
5. One set of equipment as required for Station I, Initial Assessment and Management

Goal: The goal of this station is mastery of the primary and secondary survey techniques and process.

Objectives

Performance at this station allows the participant to practice and demonstrate the secondary survey as well as a review of the primary survey activities in a simulated clinical situation.

A. Communicate and demonstrate to the instructor the systematic method of initially assessing the patient with multiple injuries while focusing on the secondary survey component. (Patient scenarios do not include patient signs and symptoms that require intervention. The patient remains hemodynamically normal.)

B. Using the primary survey assessment techniques, the student rapidly determines and demonstrates

1. Airway patency with cervical spine control
2. Breathing efficacy
3. Circulatory status with hemorrhage control
4. Disability: Neurologic status
5. Exposure/environment: Undress the patient, but prevent hypothermia

C. Integrate an AMPLE history in the assessment of the patient situation.

D. Identify any injury-producing mechanism and discuss the injuries that may exist and/or may be anticipated as a result of the mechanism of injury.

E. Assess the patient from head to toe using ATLS® secondary survey techniques.

F. Using the ATLS® primary and secondary survey techniques, reevaluate the patient's status.

Secondary Survey Skills Station

Introduction and Instructor Guide

This skills station is designed to review the initial assessment and management process and to acquaint the student with the secondary survey. This station allows each student the opportunity to demonstrate abilities to perform the primary survey and perform the secondary survey on a live, simulated trauma patient. It is recognized that this simulated process maybe somewhat artificial. However, using structured patient scenarios enables the instructor to effectively teach the student secondary survey principles.

1. The instructor teaching this skills station is responsible for assuring that the essential equipment is available for demonstration and use by the student.
2. The instructor must meet with the patient model before this station begins to coach the model, identifying cues to which the model is to demonstrate an appropriate response if needed.
3. The instructor ensures that the student remains focused on performing a rapid review of the primary survey and then a complete secondary survey. Treatment interventions are not a component of this station and the patient remains hemodynamically normal throughout the scenario.
4. Present a patient scenario (without necessary interventions) and verbally present how the primary and secondary surveys are accomplished. The instructor then describes and performs the primary and secondary surveys without any treatment interventions. During the demonstration, the instructor discusses the normal and abnormal parameters of signs and symptoms during each component of the process.
5. After the instructor's demonstration, each student is given the opportunity to verbalize the primary and secondary survey. The student is then given a scenario and simulated injury patient, at which time the student performs (hands-on) a rapid review of the primary survey and the complete secondary survey process. The instructor provides the student with normal signs and symptoms throughout this process.

Teaching Techniques:

1. **Establish set:** Introduce yourself and ask each student in the group of 4 students to introduce themselves and provide a description of the primary hospital in wthey they work and use ATLS® principles.

The goal of this station is to provide information and practice application of the secondary survey with a review of the primary survey.

Using a scenario from the set of Initial Assessment Case Surveys, the instructor talks through each step of the secondary survey, including normal and abnormal parameters of signs and symptoms. Treatment intervention is not discussed. The instructor then demonstrates the process.

Students are given a scenario and asked to perform a brief primary and complete secondary survey. Treatment intervention is not discussed. The student performer uses those diagnostic evaluation tools that are available in the hospital in which they practice. After each

student's performance with a different scenario, the group discusses the secondary survey as performed.

2. Dialogue

Present each student with a scenario

Each student performs a primary and secondary survey on the patient while verbalizing the various steps. Remember, the student performer only uses those diagnostic evaluation tools that are available in the hospital in which they practice.

Discuss each performance and scenario as it is completed

3. Closure

Ask the students what they have learned

Summarize the ATLS® Secondary Survey process, emphasizing the importance of a step-by-step survey process.

Skills Procedure

Secondary Survey

Note: Standard precautions are required whenever caring for the trauma patient.

I. PRIMARY SURVEY AND RESUSCITATION

The student (1) outlines reparations that must be made to facilitate the rapid progression of providing primary and secondary assessment of the patient; (2) indicates the need for standard precautions from communicable diseases; and (3) indicates that the patient is to be completely undressed, but that hypothermia should be prevented.

II. PRIMARY SURVEY ASSESSMENT (Review)

A. Airway with C-spine Protection

1. Ascertain patency
2. Rapidly assess for airway obstruction if airway not patent
3. Assure c-spine remains protected

B. Breathing: Ventilation and Oxygenation

1. Expose the neck and chest: Ensure protection of the head and neck
2. Determine the rate and depth of respirations
3. Inspect and palpate the neck and chest for tracheal deviation, unilateral and bilateral chest movement, use of accessory muscles, and any signs of injury
4. Percuss the chest for presence of dullness or hyperresonance
5. Auscultate the chest bilaterally

C. Circulation

1. Identify source of external, exsanguinating hemorrhage, if present
2. Identify potential source(s) of internal hemorrhage if patient is hemodynamically abnormal
3. Pulse: Quality, rate, regularity, paradox
4. Skin color and temperature
5. Blood pressure, time permitting

D. Disability: Brief Neurologic Examination

1. Determine the level of consciousness using the GCS Score
2. Assess the pupils for size, equality, and reaction

III. SECONDARY SURVEY AND MANAGEMENT

A. AMPLE History and Mechanism of Injury

1. Obtain AMPLE history from patient, family, and/or prehospital personnel
2. Obtain history of injury-producing event, identifying injury mechanisms or anatomic issues

B. Head and Maxillofacial Trauma

1. Inspect and palpate entire head and face for lacerations, contusions, fractures, and thermal injury
2. Reevaluate pupils
3. Reevaluate level of consciousness and GCS Score
4. Assess eyes for hemorrhage, penetrating injury, visual acuity, dislocation of the lens, and presence of contact lens
5. Evaluate cranial nerve function
6. Inspect ears and nose for cerebrospinal fluid and/or blood
7. Inspect mouth for evidence of bleeding and cerebrospinal fluid, soft-tissue lacerations, and loose teeth

C. Cervical Spine and Neck

1. Inspect for signs of blunt and penetrating injury, tracheal deviation, and use of accessory respiratory muscles
2. Palpate for tenderness, deformity, swelling, subcutaneous emphysema, tracheal deviation, and symmetry of pulses
3. Auscultate the carotid arteries for bruits
4. Obtain a lateral cross-table cervical spine x-ray

D. Chest

1. Inspect the anterior, lateral, and posterior chest (on logroll) wall for signs of blunt and penetrating injury, use of accessory breathing muscles, and bilateral respiratory excursion
2. Auscultate the anterior chest wall and posterior bases for bilateral breath sounds and heart sounds
3. Palpate the entire chest wall for evidence of blunt and penetrating injury, subcutaneous emphysema, tenderness, and crepitation

E. Abdomen

1. Inspect the anterior and posterior abdominal wall for signs of blunt and penetrating injury and internal bleeding
2. Auscultate for presence/absence of bowel sounds
3. Percuss the abdomen to elicit peritoneal signs
4. Palpate the abdomen for tenderness, involuntary muscle guarding, unequivocal rebound tenderness, or a gravid uterus

5. Obtain a pelvic x-ray
6. Perform diagnostic peritoneal lavage/abdominal ultrasound, if warranted
7. Obtain CT of the abdomen if the patient is hemodynamically normal

F. Perineum, Assess for

1. Contusions and hematomas
2. Lacerations
3. Urethral bleeding

G. Rectum, Assess for

1. Blood
2. Anal sphincter tone
3. Bowel wall integrity
4. Bony fragments
5. Prostate position

H. Vagina

1. Blood
2. Lacerations

I. Musculoskeletal

1. Inspect the upper and lower extremities for evidence of blunt and penetrating injury, including contusion, lacerations, and deformity
2. Palpate the upper and lower extremities for tenderness, Crepitation, abnormal movement, and sensation
3. Palpate all peripheral pulses for presence, quality, and equality
4. Assess the pelvis for evidence of fracture and associated hemorrhage
5. Inspect and palpate the thoracic and lumbar spine for evidence of blunt and penetrating injury, including contusions, laceration, tenderness, deformity, and sensation
6. Evaluate the pelvic x-ray for evidence of a fracture
7. Obtain an x-ray of suspected fracture sites as indicated

J. Neurologic

1. Reevaluate the pupils and level of consciousness
2. Determine the GCS Score again
3. Evaluate the upper and lower extremities for motor and sensory functions
4. Observe for lateralizing signs

IV. ADJUNCTS TO THE SECONDARY SURVEY

Consider the need for and obtain these diagnostic tests as the patient's condition permits and warrants:

- A. Additional spine x-rays
- B. CT of the head, chest, abdomen, and/or spine
- C. Contrast urography
- D. Angiography
- E. Extremity x-rays
- F. Transesophageal ultrasound
- G. Bronchoscopy
- H. Esophagoscopy

V. PATIENT REEVALUATION

Reevaluate the patient, noting, reporting, and documenting any changes in the patient's condition and responses to resuscitative efforts. Judicious use of analgesics may be employed. Continuous monitoring of vital signs and urinary output is essential.