

Lesson 5A

Learning Station: Preventing Arrest: Bradycardia

60 minutes

Learning Objectives

- Recognize bradycardias that may result in cardiac arrest or complicate resuscitation outcome
- Perform early management of bradycardias that may result in cardiac arrest or complicate resuscitation outcome

Instructor Tips

- Students often have difficulty differentiating between the heart block rhythms. Focus more on the treatments for stable vs unstable bradycardia than on detailed analysis of specific rhythms
- For in-hospital case scenarios only, students should request RRT/MET response
- When debriefing students:
 - Ask open-ended questions to engage group discussion and allow for greater detail
 - When answering a question, acknowledge the individual with eye contact, and then answer to the entire room, coming back to the questioner periodically



Optional: Play Bradycardia Algorithm Video

- Address what students will learn from the video
- Play the video
- Answer students' questions



Discussion

- Monitor/defibrillator technology review, if needed
 - Apply limb leads to patient so that pacing can be achieved through pacer pads
- Signs of clinical deterioration
- Stable vs unstable patients
- Definition of unstable signs and symptoms
- First-degree AV block
- Second-degree type I AV block
- Second-degree type II AV block
- Third-degree (complete block)
- Junctional rhythms (slow)
- Idioventricular rhythm
- H's and T's
- Local protocol

Lesson 5B

Learning Station:

Preventing Arrest: Bradycardia—Rotations

Instructor Tips

- This learning station is designed to allow 3 of the 6 students to be a Team Leader during this lesson and the other 3 to be a Team Leader in Lesson 6: Tachycardia
- When students have to rotate roles during practice, provide enough space for rotation to allow for effective observation and monitoring of student performance
- To ensure incorporation of knowledge into practice, make sure the students actually perform the skills of defibrillation, synchronized cardioversion, and transcutaneous pacing



Students Practice



Student Rotations in Learning Station Cases According to Team Roles

- The **Team Leader** will direct the actions of the other team members. For example, the Team Leader will coach the Airway team member if the performance of bag-mask ventilation is not making the chest rise
- **Team members** will perform interventions as directed by the Team Leader. This is an opportunity for students to practice skills and receive feedback from the Team Leader. Students will demonstrate effective team behaviors (eg, closed-loop communication, clear messages)
- **For bradycardia:** The **Timer/Recorder** will check off critical action boxes on the Bradycardia Learning Station Checklist



Students Practice

- Select 3 cases for 3 students to manage individually in this station (Table 6)
- Students will run scenarios (individually) and perform debriefing for all 3 cases (case scenarios can be found in the Appendix of the instructor manual or in the Instructor Reference Material)



Discussion

- Provide feedback on students' debriefing (Table 7)
 - Use the gather-analyze-summarize debriefing process described here
- What was challenging?
- What worked well in this case?

Table 6. Student Rotations for Bradycardia Learning Station

Team Role	Case 1 (10 minutes)	Case 2 (10 minutes)	Case 3 (10 minutes)
Team Leader	Student 6	Student 1	Student 2
Airway	Student 1	Student 2	Student 3
IV/IO/Medications	Student 2	Student 3	Student 4
Monitor/Defibrillator	Student 3	Student 4	Student 5
Compressor (if needed)	Student 4	Student 5	Student 6
Timer/Recorder	Student 5	Student 6	Student 1

Table 7. Structured and Supported Debriefing Process for Bradycardia Learning Station

Phase	Goal	Actions
Gather	Ask what happened during the case to develop a shared mental model of the events. Listen to students to understand what they think and how they feel about the simulation	<ul style="list-style-type: none"> Request a narrative from the Team Leader Request clarifying or supplementary information from the high-performance team
Analyze	Facilitate students' reflection on and analysis of their actions	<ul style="list-style-type: none"> Review an accurate record of events Report observations (both correct and incorrect steps) Assist students in thoroughly reflecting on and examining their performance during the simulation as well as in reflecting on their perceptions during the debriefing Direct and/or redirect students during the debriefing to ensure continuous focus on session objectives
Summarize	Facilitate identification and review of the lessons learned that can be taken into actual practice	<ul style="list-style-type: none"> Summarize comments or statements from students Have students identify positive aspects of their high-performance team or individual behaviors Have students identify areas of their high-performance team or individual behaviors that require change or correction

Lesson 5C

Learning Station: Preventing Arrest: Bradycardia— Details for Case Rotations



Students Practice

Use Table 8 to determine case rotations for this learning station.

Table 8. Timing and Tasks for Bradycardia Learning Station

Case rotations (3 rotations, 10 minutes each)	Directions for case rotations (Instructors must conduct the scenario in real time)
Start case scenario(s) (6 minutes)	<ul style="list-style-type: none"> • Review assigned team roles from the rotation chart for this case <ul style="list-style-type: none"> – Ensure that students understand the expectations for their assigned roles (eg, “Your role is to use the bag-mask device to give ventilations that cause the chest to rise”) • Introduce the case by reading the case scenario • Set the timer to 6 minutes • Ask the Team Leader to begin managing the case • Advise the Team Leader to observe and coach while being mindful of the case timing • Students may use the Handbook of ECC, pocket cards, or crash cart cards • Observe and coach <ul style="list-style-type: none"> – Effective team performance – Appropriate case management – High-quality skills performance, including high-quality CPR, when needed, throughout the scenario • Guide the Team Leader through management of the case • Stop the case after 6 minutes
Case debriefing (4 minutes)	<ul style="list-style-type: none"> • Set the timer to 4 minutes • Conduct a debriefing at the end of the case (refer to Debriefing Tools in the instructor manual) • Ask the Team Leader to gather, analyze, and summarize the case, roles of team members, and areas for improvement • Ask the Timer/Recorder to critique the case • Give a summary of key concepts of the case <ul style="list-style-type: none"> – Differentiating between signs and symptoms that are caused by the slow rate vs those that are unrelated – Correctly recognizing the presence and type of AV block – Using atropine as the drug intervention of first choice – Deciding when to start transcutaneous pacing – Deciding when to start epinephrine or dopamine to maintain heart rate and blood pressure – Knowing when to call for expert consultation about complicated rhythm interpretation, drugs, or management decisions

Repeat for each of the remaining cases.

Lesson 6A

Learning Station: Preventing Arrest: Tachycardia (Stable and Unstable)

60 minutes

Learning Objectives

- Recognize tachycardias that may result in cardiac arrest or complicate resuscitation outcome
- Perform early management of tachycardias that may result in cardiac arrest or complicate resuscitation outcome

Instructor Tips

- Begin with the end in mind: knowing what you want to communicate, why it's important, and what you want to have happen as a result is critical to the success of your lesson
- Emphasize the need for rapid treatment (ie, electrical therapy) in patients with unstable tachycardia
- For in-hospital case scenarios only, students should request RRT/MET response
- To ensure incorporation of knowledge into practice, make sure the students actually perform the skills for defibrillation, synchronized cardioversion, and transcutaneous pacing



Optional: Play Tachycardia Algorithm Video

- Address what students will learn from the video
- Play the video
- Answer students' questions



Discussion

- Monitor/defibrillator technology review if needed
- Review tachycardias
 - Stable vs unstable patient
 - Sinus tachycardia
 - Reentry supraventricular tachycardia
 - Atrial fibrillation
 - Atrial flutter
 - Junctional rhythms (fast)
 - Monomorphic ventricular tachycardia (with pulse)
 - Polymorphic ventricular tachycardia (with pulse)
 - Torsades de pointes
 - Wide-complex tachycardia of uncertain type
 - Discuss local protocol

Lesson 6B

Learning Station: Preventing Arrest: Tachycardia (Stable and Unstable)—Rotations

Instructor Tips

- This learning station is designed to allow 3 of the 6 students to be a Team Leader during this lesson and the other 3 to be a Team Leader in Lesson 5: Bradycardia
- Other assigned student roles may vary depending on the number of students at the station
- Cases may be run in a different order, but assigned student roles should not be changed
- If students rotate roles during practice, provide enough space for rotation to allow for effective observation and monitoring of student performance



Students Practice



Student Rotations in Learning Station Cases According to Resuscitation Team Roles

- The **Team Leader** will direct the actions of the other team members. For example, the Team Leader will coach the Airway team member if performance of bag-mask ventilation is not making the chest rise
- **Team members** will perform interventions as directed by the Team Leader. This is an opportunity for students to practice skills and receive feedback from the Team Leader. Students will demonstrate effective team behaviors (eg, closed-loop communication, clear messages)
- The **Timer/Recorder** will check off critical action boxes on the Tachycardia Learning Station Checklist



Students Practice

- Select 3 cases for 3 students to manage individually in this station (Table 9)
- Run the scenario and perform the debriefing for all 3 cases (case scenarios can be found in the Appendix of the instructor manual or in the Instructor Reference Material)



Discussion

- Provide feedback on the students' debriefing
 - What was challenging?
 - What worked well in this case?

Table 9. Student Rotations for Tachycardia Learning Station

Team Role	Case 1 (10 minutes)	Case 2 (10 minutes)	Case 3 (10 minutes)
Team Leader	Student 3	Student 4	Student 5
Airway	Student 4	Student 5	Student 6
IV/IO/Medications	Student 5	Student 6	Student 1
Monitor/Defibrillator	Student 6	Student 1	Student 2
Compressor (if needed)	Student 1	Student 2	Student 3
Timer/Recorder	Student 2	Student 3	Student 4

Lesson 6C

Learning Station:

Preventing Arrest: Tachycardia

(Stable and Unstable)—Details for Case Rotations



Students Practice

Use Table 10 to determine case rotations for this learning station.

Table 10. Timing and Tasks for Tachycardia Learning Station

Case rotations (3 rotations, 10 minutes each)	Directions for case rotations (Instructors must conduct the scenario in real time)
Start case scenario (6 minutes)	<ul style="list-style-type: none">• Review assigned team roles from the rotation chart for this case<ul style="list-style-type: none">– Ensure that students understand the expectations for their assigned roles (eg, “Your role is to use the bag-mask device to give ventilations that cause the chest to rise”)• Introduce the case by reading the case scenario• Set the timer to 6 minutes• Ask the Team Leader to begin managing the case• Students may use the Handbook of ECC, pocket cards, or crash cart cards• Observe and coach<ul style="list-style-type: none">– Effective team performance– Appropriate case management– High-quality skills performance– Guide the Team Leader through management of the case• Stop the case after 6 minutes
Case debriefing (4 minutes)	<ul style="list-style-type: none">• Set the timer to 4 minutes• Conduct a debriefing at the end of the case<ul style="list-style-type: none">– Refer to Debriefing Tools in the instructor manual• Ask the Team Leader to summarize the case, the roles of team members, and areas for improvement• Ask the Timer/Recorder to critique the case• Give a summary of key concepts of the case<ul style="list-style-type: none">– Begin with the end in mind: knowing what you want to communicate, why it’s important, and what you want to have happen as a result is critical to the success of your lesson– Discuss differentiating between signs and symptoms that are caused by a rapid rate vs those that are unrelated– Emphasize the need for rapid treatment (ie, electrical therapy) in patients with unstable tachycardia– For in-hospital case scenarios only, students should request RRT/MET response– Discuss defibrillation, synchronized cardioversion, and transcutaneous pacing

Repeat for each of the remaining cases (Stable and Unstable Tachycardia).