

Megacode Practice Learning Station Checklist: Case 49

Tachycardia → VF → Asystole → PCAC

Student Name _____ Date of Test _____

Critical Performance Steps	✓ if done correctly
Team Leader	
Ensures high-quality CPR at all times	
Assigns team member roles	
Ensures that team members perform well	
Tachycardia Management	
Starts oxygen if needed, places monitor, starts IV	
Places monitor leads in proper position	
Recognizes unstable tachycardia	
Recognizes symptoms due to respiratory arrest (choking)	
VF Management	
Recognizes VF	
Clears before analyze and shock	
Immediately resumes CPR after shocks	
Appropriate airway management	
Appropriate cycles of drug–rhythm check/shock–CPR	
Administers appropriate drug(s) and doses	
Asystole Management	
Recognizes asystole	
Verbalizes potential reversible causes of asystole (H’s and T’s)	
Administers appropriate drug(s) and doses	
Immediately resumes CPR after rhythm and pulse checks	
Post-Cardiac Arrest Care	
Identifies ROSC	
Ensures BP and 12-lead ECG are performed, O ₂ saturation is monitored, verbalizes need for endotracheal intubation and waveform capnography, and orders laboratory tests	
Considers targeted temperature management	

STOP TEST

Instructor Notes	
<ul style="list-style-type: none"> Place a ✓ in the box next to each step the student completes successfully. If the student does not complete all steps successfully (as indicated by at least 1 blank check box), the student must receive remediation. Make a note here of which skills require remediation (refer to Instructor Manual for information about remediation). 	
Test Results	Circle PASS or NR to indicate pass or needs remediation:
	PASS NR
Instructor Initials _____ Instructor Number _____ Date _____	

Megacode Practice Learning Station Checklist: Cases 50/53/58/61/63

Tachycardia → VF → PEA → PCAC

Student Name _____ Date of Test _____

Critical Performance Steps	✓ if done correctly
Team Leader	
Ensures high-quality CPR at all times	
Assigns team member roles	
Ensures that team members perform well	
Tachycardia Management	
Starts oxygen if needed, places monitor, starts IV	
Places monitor leads in proper position	
Recognizes unstable tachycardia	
Recognizes symptoms due to respiratory arrest (choking)	
Performs immediate synchronized cardioversion	
VF Management	
Recognizes VF	
Clears before analyze and shock	
Immediately resumes CPR after shocks	
Appropriate airway management	
Appropriate cycles of drug–rhythm check/shock–CPR	
Administers appropriate drug(s) and doses	
PEA Management	
Recognizes PEA	
Verbalizes potential reversible causes of PEA (H’s and T’s)	
Administers appropriate drug(s) and doses	
Immediately resumes CPR after rhythm and pulse checks	
Post-Cardiac Arrest Care	
Identifies ROSC	
Ensures BP and 12-lead ECG are performed, O ₂ saturation is monitored, verbalizes need for endotracheal intubation and waveform capnography, and orders laboratory tests	
Considers targeted temperature management	

STOP TEST

Instructor Notes <ul style="list-style-type: none"> Place a ✓ in the box next to each step the student completes successfully. If the student does not complete all steps successfully (as indicated by at least 1 blank check box), the student must receive remediation. Make a note here of which skills require remediation (refer to Instructor Manual for information about remediation). 	
Test Results Circle PASS or NR to indicate pass or needs remediation:	PASS NR
Instructor Initials _____ Instructor Number _____ Date _____	

Megacode Practice Learning Station Checklist: Case 51

Bradycardia → Pulseless VT → Asystole → PCAC

Student Name _____ Date of Test _____

Critical Performance Steps	✓ if done correctly
Team Leader	
Ensures high-quality CPR at all times	
Assigns team member roles	
Ensures that team members perform well	
Bradycardia Management	
Starts oxygen if needed, places monitor, starts IV	
Places monitor leads in proper position	
Recognizes symptomatic bradycardia	
Administers correct dose of atropine	
Prepares for second-line treatment	
Pulseless VT Management	
Recognizes pVT	
Clears before analyze and shock	
Immediately resumes CPR after shocks	
Appropriate airway management	
Appropriate cycles of drug–rhythm check/shock–CPR	
Administers appropriate drug(s) and doses	
Asystole Management	
Recognizes asystole	
Verbalizes potential reversible causes of asystole (H’s and T’s)	
Administers appropriate drug(s) and doses	
Immediately resumes CPR after rhythm and pulse checks	
Post-Cardiac Arrest Care	
Identifies ROSC	
Ensures BP and 12-lead ECG are performed, O ₂ saturation is monitored, verbalizes need for endotracheal intubation and waveform capnography, and orders laboratory tests	
Considers targeted temperature management	

STOP TEST

Instructor Notes

- Place a ✓ in the box next to each step the student completes successfully.
- If the student does not complete all steps successfully (as indicated by at least 1 blank check box), the student must receive remediation. Make a note here of which skills require remediation (refer to Instructor Manual for information about remediation).

Test Results Circle **PASS** or **NR** to indicate pass or needs remediation:

PASS

NR

Instructor Initials _____ Instructor Number _____ Date _____

Megacode Practice Learning Station Checklist: Cases 52/55

Bradycardia → Pulseless VT → PEA → PCAC

Student Name _____ Date of Test _____

Critical Performance Steps	✓ if done correctly
Team Leader	
Ensures high-quality CPR at all times	
Assigns team member roles	
Ensures that team members perform well	
Bradycardia Management	
Starts oxygen if needed, places monitor, starts IV	
Places monitor leads in proper position	
Recognizes symptomatic bradycardia	
Administers correct dose of atropine	
Prepares for second-line treatment	
Pulseless VT Management	
Recognizes pVT	
Clears before analyze and shock	
Immediately resumes CPR after shocks	
Appropriate airway management	
Appropriate cycles of drug–rhythm check/shock–CPR	
Administers appropriate drug(s) and doses	
PEA Management	
Recognizes PEA	
Verbalizes potential reversible causes of PEA (H's and T's)	
Administers appropriate drug(s) and doses	
Immediately resumes CPR after rhythm and pulse checks	
Post-Cardiac Arrest Care	
Identifies ROSC	
Ensures BP and 12-lead ECG are performed, O ₂ saturation is monitored, verbalizes need for endotracheal intubation and waveform capnography, and orders laboratory tests	
Considers targeted temperature management	

STOP TEST

Instructor Notes <ul style="list-style-type: none"> Place a ✓ in the box next to each step the student completes successfully. If the student does not complete all steps successfully (as indicated by at least 1 blank check box), the student must receive remediation. Make a note here of which skills require remediation (refer to Instructor Manual for information about remediation). 		
Test Results Circle PASS or NR to indicate pass or needs remediation:	PASS NR	
Instructor Initials _____ Instructor Number _____ Date _____		

Megacode Practice Learning Station Checklist: Case 54

Tachycardia → VF → Asystole → PCAC

Student Name _____ Date of Test _____

Critical Performance Steps	✓ if done correctly
Team Leader	
Ensures high-quality CPR at all times	
Assigns team member roles	
Ensures that team members perform well	
Tachycardia Management	
Starts oxygen if needed, places monitor, starts IV	
Places monitor leads in proper position	
Recognizes unstable tachycardia	
Recognizes symptoms due to tachycardia	
Performs immediate synchronized cardioversion	
VF Management	
Recognizes VF	
Clears before analyze and shock	
Immediately resumes CPR after shocks	
Appropriate airway management	
Appropriate cycles of drug–rhythm check/shock–CPR	
Administers appropriate drug(s) and doses	
Asystole Management	
Recognizes asystole	
Verbalizes potential reversible causes of asystole (H's and T's)	
Administers appropriate drug(s) and doses	
Immediately resumes CPR after rhythm and pulse checks	
Post-Cardiac Arrest Care	
Identifies ROSC	
Ensures BP and 12-lead ECG are performed, O ₂ saturation is monitored, verbalizes need for endotracheal intubation and waveform capnography, and orders laboratory tests	
Considers targeted temperature management	

STOP TEST

Instructor Notes

- Place a ✓ in the box next to each step the student completes successfully.
- If the student does not complete all steps successfully (as indicated by at least 1 blank check box), the student must receive remediation. Make a note here of which skills require remediation (refer to Instructor Manual for information about remediation).

Test Results Circle **PASS** or **NR** to indicate pass or needs remediation:

PASS

NR

Instructor Initials _____ Instructor Number _____ Date _____

Megacode Practice Learning Station Checklist: Cases 56/59

Tachycardia → Pulseless VT → PEA → PCAC

Student Name _____ Date of Test _____

Critical Performance Steps	✓ if done correctly
Team Leader	
Ensures high-quality CPR at all times	
Assigns team member roles	
Ensures that team members perform well	
Tachycardia Management	
Starts oxygen if needed, places monitor, starts IV	
Places monitor leads in proper position	
Recognizes unstable tachycardia	
Recognizes symptoms due to tachycardia	
Performs immediate synchronized cardioversion	
Pulseless VT Management	
Recognizes pulseless VT	
Clears before analyze and shock	
Immediately resumes CPR after shocks	
Appropriate airway management	
Appropriate cycles of drug–rhythm check/shock–CPR	
Administers appropriate drug(s) and doses	
PEA Management	
Recognizes PEA	
Verbalizes potential reversible causes of PEA (H's and T's)	
Administers appropriate drug(s) and doses	
Immediately resumes CPR after rhythm and pulse checks	
Post-Cardiac Arrest Care	
Identifies ROSC	
Ensures BP and 12-lead ECG are performed, O ₂ saturation is monitored, verbalizes need for endotracheal intubation and waveform capnography, and orders laboratory tests	
Considers targeted temperature management	

STOP TEST

Instructor Notes <ul style="list-style-type: none"> Place a ✓ in the box next to each step the student completes successfully. If the student does not complete all steps successfully (as indicated by at least 1 blank check box), the student must receive remediation. Make a note here of which skills require remediation (refer to Instructor Manual for information about remediation). 	
Test Results Circle PASS or NR to indicate pass or needs remediation:	PASS NR
Instructor Initials _____ Instructor Number _____ Date _____	

Megacode Practice Learning Station Checklist: Cases 57/60

Bradycardia → VF → Asystole → PCAC

Student Name _____ Date of Test _____

Critical Performance Steps	✓ if done correctly
Team Leader	
Ensures high-quality CPR at all times	
Assigns team member roles	
Ensures that team members perform well	
Bradycardia Management	
Starts oxygen if needed, places monitor, starts IV	
Places monitor leads in proper position	
Recognizes symptomatic bradycardia	
Administers correct dose of atropine	
Prepares for second-line treatment	
VF Management	
Recognize VF	
Clears before analyze and shock	
Immediately resumes CPR after shocks	
Appropriate airway management	
Appropriate cycles of drug–rhythm check/shock–CPR	
Administers appropriate drug(s) and doses	
Asystole Management	
Recognizes asystole	
Verbalizes potential reversible causes of asystole (H’s and T’s)	
Administers appropriate drug(s) and doses	
Immediately resumes CPR after rhythm and pulse checks	
Post-Cardiac Arrest Care	
Identifies ROSC	
Ensures BP and 12-lead ECG are performed, O ₂ saturation is monitored, verbalizes need for endotracheal intubation and waveform capnography, and orders laboratory tests	
Considers targeted temperature management	

STOP TEST

Instructor Notes

- Place a ✓ in the box next to each step the student completes successfully.
- If the student does not complete all steps successfully (as indicated by at least 1 blank check box), the student must receive remediation. Make a note here of which skills require remediation (refer to Instructor Manual for information about remediation).

Test Results Circle **PASS** or **NR** to indicate pass or needs remediation:

PASS

NR

Instructor Initials _____ Instructor Number _____ Date _____

Megacode Practice Learning Station Checklist: Case 62

Tachycardia → VF → PEA → PCAC

Student Name _____ Date of Test _____

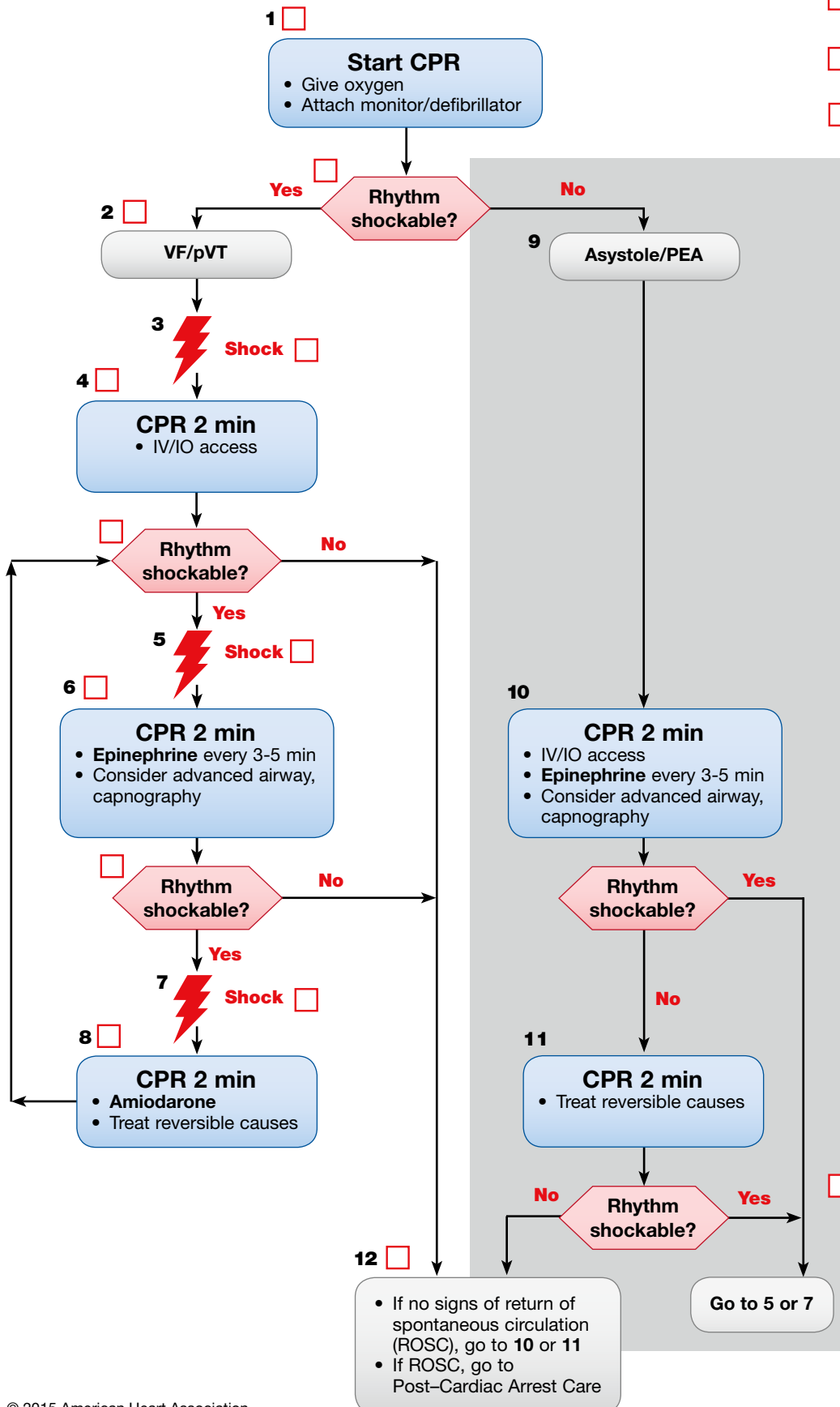
Critical Performance Steps	✓ if done correctly
Team Leader	
Ensures high-quality CPR at all times	
Assigns team member roles	
Ensures that team members perform well	
Tachycardia Management	
Starts oxygen if needed, places monitor, starts IV	
Places monitor leads in proper position	
Recognizes unstable tachycardia	
Recognizes symptoms due to gunshot wound	
VF Management	
Recognizes VF	
Clears before analyze and shock	
Immediately resumes CPR after shocks	
Appropriate airway management	
Appropriate cycles of drug–rhythm check/shock–CPR	
Administers appropriate drug(s) and doses	
PEA Management	
Recognizes PEA	
Verbalizes potential reversible causes of PEA (H’s and T’s)	
Administers appropriate drug(s) and doses	
Immediately resumes CPR after rhythm and pulse checks	
Post-Cardiac Arrest Care	
Identifies ROSC	
Ensures BP and 12-lead ECG are performed, O ₂ saturation is monitored, verbalizes need for endotracheal intubation and waveform capnography, and orders laboratory tests	
Considers targeted temperature management	

STOP TEST

Instructor Notes	
<ul style="list-style-type: none"> Place a ✓ in the box next to each step the student completes successfully. If the student does not complete all steps successfully (as indicated by at least 1 blank check box), the student must receive remediation. Make a note here of which skills require remediation (refer to Instructor Manual for information about remediation). 	
Test Results	Circle PASS or NR to indicate pass or needs remediation: PASS NR
Instructor Initials _____ Instructor Number _____ Date _____	

Cardiac Arrest VF/Pulseless VT Learning Station Checklist

Adult Cardiac Arrest Algorithm—2015 Update



CPR Quality

- Push hard (at least 2 inches [5 cm]) and fast (100-120/min) and allow complete chest recoil.
- Minimize interruptions in compressions.
- Avoid excessive ventilation.
- Rotate compressor every 2 minutes, or sooner if fatigued.
- If no advanced airway, 30:2 compression-ventilation ratio.
- Quantitative waveform capnography
 - If PETCO₂ <10 mm Hg, attempt to improve CPR quality.
- Intra-arterial pressure
 - If relaxation phase (diastolic) pressure <20 mm Hg, attempt to improve CPR quality.

Shock Energy for Defibrillation

- **Biphasic:** Manufacturer recommendation (eg, initial dose of 120-200 J); if unknown, use maximum available. Second and subsequent doses should be equivalent, and higher doses may be considered.
- **Monophasic:** 360 J

Drug Therapy

- **Epinephrine IV/IO dose:** 1 mg every 3-5 minutes
- **Amiodarone IV/IO dose:** First dose: 300 mg bolus. Second dose: 150 mg.

Advanced Airway

- Endotracheal intubation or supraglottic advanced airway
- Waveform capnography or capnometry to confirm and monitor ET tube placement
- Once advanced airway in place, give 1 breath every 6 seconds (10 breaths/min) with continuous chest compressions

Return of Spontaneous Circulation (ROSC)

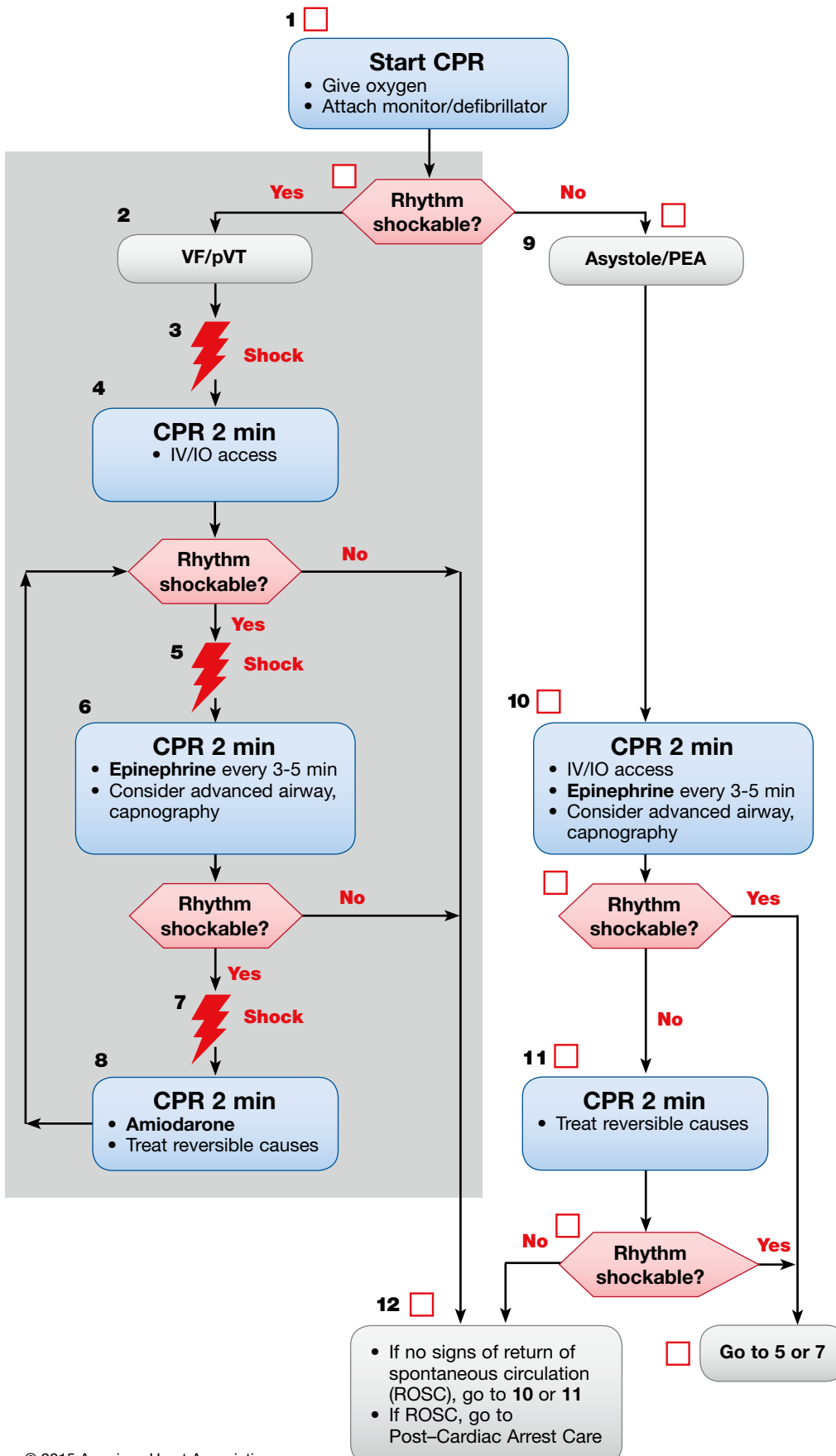
- Pulse and blood pressure
- Abrupt sustained increase in PETCO₂ (typically ≥40 mm Hg)
- Spontaneous arterial pressure waves with intra-arterial monitoring

Reversible Causes

- **Hypovolemia**
- **Hypoxia**
- **Hydrogen ion (acidosis)**
- **Hypo-/hyperkalemia**
- **Hypothermia**
- **Tension pneumothorax**
- **Tamponade, cardiac**
- **Toxins**
- **Thrombosis, pulmonary**
- **Thrombosis, coronary**

Cardiac Arrest Asystole/PEA Learning Station Checklist

Adult Cardiac Arrest Algorithm—2015 Update



CPR Quality

- Push hard (at least 2 inches [5 cm]) and fast (100-120/min) and allow complete chest recoil.
- Minimize interruptions in compressions.
- Avoid excessive ventilation.
- Rotate compressor every 2 minutes, or sooner if fatigued.
- If no advanced airway, 30:2 compression-ventilation ratio.
- Quantitative waveform capnography
 - If PETCO₂ <10 mm Hg, attempt to improve CPR quality.
- Intra-arterial pressure
 - If relaxation phase (diastolic) pressure <20 mm Hg, attempt to improve CPR quality.

Shock Energy for Defibrillation

- **Biphasic:** Manufacturer recommendation (eg, initial dose of 120-200 J); if unknown, use maximum available. Second and subsequent doses should be equivalent, and higher doses may be considered.
- **Monophasic:** 360 J

Drug Therapy

- **Epinephrine IV/IO dose:** 1 mg every 3-5 minutes
- **Amiodarone IV/IO dose:** First dose: 300 mg bolus. Second dose: 150 mg.

Advanced Airway

- Endotracheal intubation or supraglottic advanced airway
- Waveform capnography or capnometry to confirm and monitor ET tube placement
- Once advanced airway in place, give 1 breath every 6 seconds (10 breaths/min) with continuous chest compressions

Return of Spontaneous Circulation (ROSC)

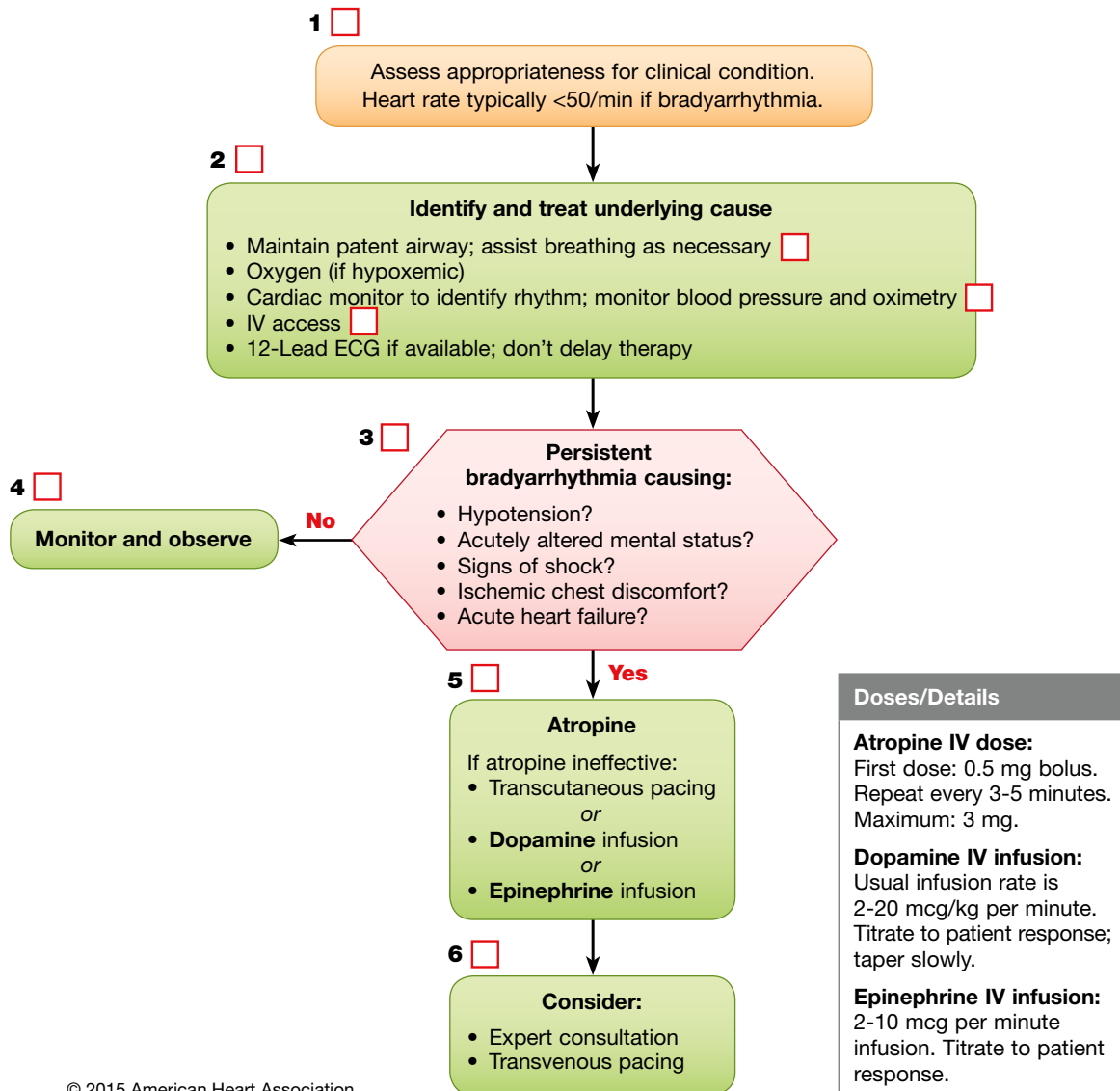
- Pulse and blood pressure
- Abrupt sustained increase in PETCO₂ (typically ≥40 mm Hg)
- Spontaneous arterial pressure waves with intra-arterial monitoring

Reversible Causes

- Hypovolemia
- Hypoxia
- Hydrogen ion (acidosis)
- Hypo-/hyperkalemia
- Hypothermia
- Tension pneumothorax
- Tamponade, cardiac
- Toxins
- Thrombosis, pulmonary
- Thrombosis, coronary

Bradycardia Learning Station Checklist

Adult Bradycardia With a Pulse Algorithm



Tachycardia Learning Station Checklist

Adult Tachycardia With a Pulse Algorithm

1

Assess appropriateness for clinical condition.
Heart rate typically $\geq 150/\text{min}$ if tachyarrhythmia.

2

Identify and treat underlying cause

- Maintain patent airway; assist breathing as necessary
- Oxygen (if hypoxemic)
- Cardiac monitor to identify rhythm; monitor blood pressure and oximetry

3

Persistent tachyarrhythmia causing:

- Hypotension?
- Acutely altered mental status?
- Signs of shock?
- Ischemic chest discomfort?
- Acute heart failure?

Yes

4

Synchronized cardioversion

- Consider sedation
- If regular narrow complex, consider adenosine

No

5

**Wide QRS?
 ≥ 0.12 second**

Yes

6

- IV access and 12-lead ECG if available
- Consider adenosine only if regular and monomorphic
- Consider antiarrhythmic infusion
- Consider expert consultation

No

7

- IV access and 12-lead ECG if available
- Vagal maneuvers
- Adenosine (if regular)
- β -Blocker or calcium channel blocker
- Consider expert consultation

Doses/Details

Synchronized cardioversion:

Initial recommended doses:

- Narrow regular: 50-100 J
- Narrow irregular: 120-200 J biphasic or 200 J monophasic
- Wide regular: 100 J
- Wide irregular: defibrillation dose (*not* synchronized)

Adenosine IV dose:

First dose: 6 mg rapid IV push; follow with NS flush.
Second dose: 12 mg if required.

Antiarrhythmic Infusions for Stable Wide-QRS Tachycardia

Procainamide IV dose:

20-50 mg/min until arrhythmia suppressed, hypotension ensues, QRS duration increases $>50\%$, or maximum dose 17 mg/kg given. Maintenance infusion: 1-4 mg/min. Avoid if prolonged QT or CHF.

Amiodarone IV dose:

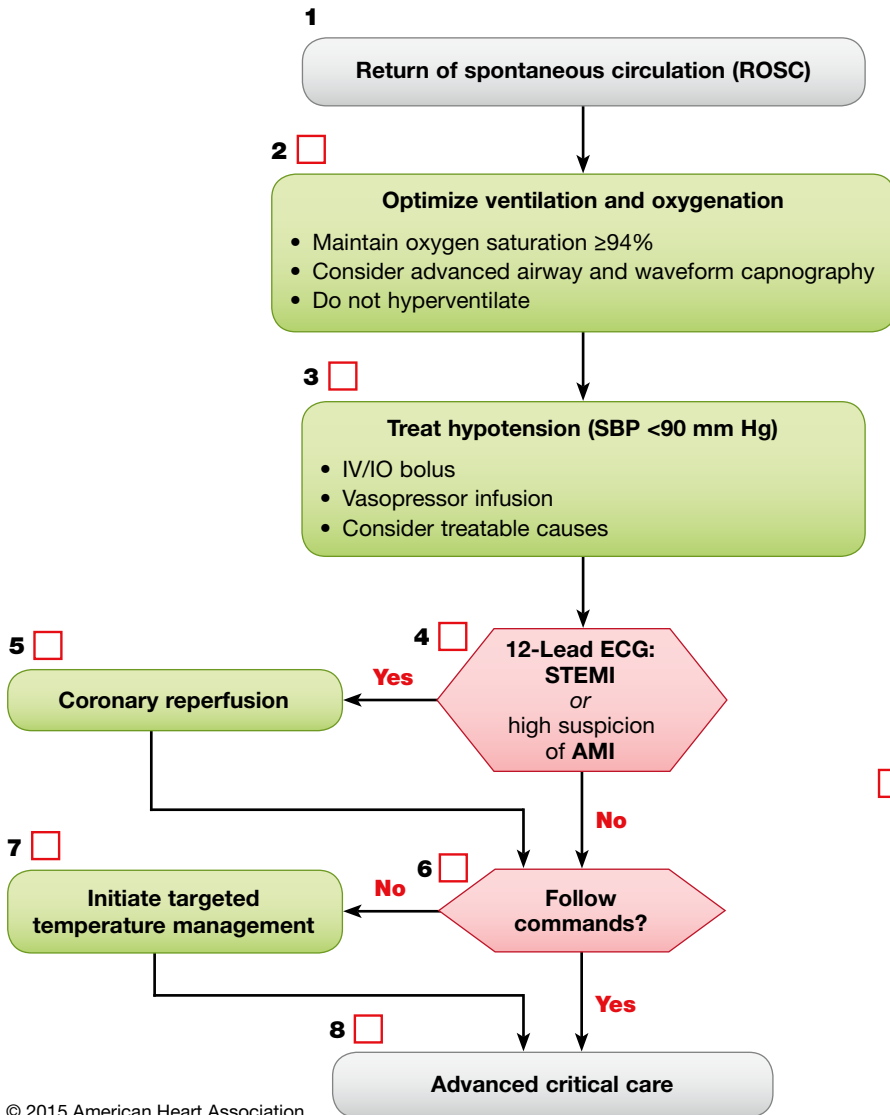
First dose: 150 mg over 10 minutes. Repeat as needed if VT recurs. Follow by maintenance infusion of 1 mg/min for first 6 hours.

Sotalol IV dose:

100 mg (1.5 mg/kg) over 5 minutes. Avoid if prolonged QT.

Immediate Post-Cardiac Arrest Care Learning Station Checklist

Adult Immediate Post-Cardiac Arrest Care Algorithm—2015 Update



Doses/Details
<p>Ventilation/oxygenation: Avoid excessive ventilation. Start at 10 breaths/min and titrate to target PETCO₂ of 35-40 mm Hg. When feasible, titrate FIO₂ to minimum necessary to achieve Spo₂ ≥94%.</p> <p>IV bolus: Approximately 1-2 L normal saline or lactated Ringer's</p> <p>Epinephrine IV infusion: 0.1-0.5 mcg/kg per minute (in 70-kg adult: 7-35 mcg per minute)</p> <p>Dopamine IV infusion: 5-10 mcg/kg per minute</p> <p>Norepinephrine IV infusion: 0.1-0.5 mcg/kg per minute (in 70-kg adult: 7-35 mcg per minute)</p>
Reversible Causes
<ul style="list-style-type: none"> • Hypovolemia • Hypoxia • Hydrogen ion (acidosis) • Hypo-/hyperkalemia • Hypothermia • Tension pneumothorax • Tamponade, cardiac • Toxins • Thrombosis, pulmonary • Thrombosis, coronary