Adult Cardiac Arrest Algorithm (VF/pVT)

**Start CPR**
- Give oxygen
- Attach monitor/defibrillator

**Rhythm shockable?**
- Yes
- No

**VF/pVT**

**CPR 2 min**
- IV/IO access

**Rhythm shockable?**
- Yes
- No

**Shock**
- Yes
- No

**CPR 2 min**
- Epinephrine every 3-5 min
- Consider advanced airway, capnography

**Rhythm shockable?**
- Yes
- No

**CPR 2 min**
- IV/IO access
- Epinephrine every 3-5 min
- Consider advanced airway, capnography

**CPR 2 min**
- IV/IO access
- Epinephrine every 3-5 min
- Consider advanced airway, capnography

**CPR 2 min**
- IV/IO access
- Amiodarone or lidocaine
- Treat reversible causes

**Rhythm shockable?**
- Yes
- No

**Asystole/PEA**

**CPR 2 min**
- IV/IO access
- Epinephrine every 3-5 min
- Consider advanced airway, capnography

**CPR 2 min**
- IV/IO access
- Epinephrine every 3-5 min
- Consider advanced airway, capnography

**CPR 2 min**
- IV/IO access
- Epinephrine every 3-5 min
- Consider advanced airway, capnography

**CPR 2 min**
- IV/IO access
- Epinephrine every 3-5 min
- Consider advanced airway, capnography

**CPR 2 min**
- IV/IO access
- Epinephrine every 3-5 min
- Consider advanced airway, capnography

**Rhythm shockable?**
- Yes
- No

**Go to 5 or 7**

---

**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.
- Change compressor every 2 minutes, or sooner if fatigued.
- If no advanced airway, 30:2 compression-ventilation ratio.
- Quantitative waveform capnography
  - If P_{ETCO2} is low or decreasing, reassess CPR quality.

**Shock Energy for Defibrillation**
- Biphase: 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.
- Lidocaine IV/IO dose: First dose: 1-1.5 mg/kg. Second dose: 0.5-0.75 mg/kg.

**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 P_{ETCO2}, (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

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Start CPR
- Give oxygen
- Attach monitor/defibrillator

Rhythm shockable?
Yes
No

VF/pVT
Shock

CPR 2 min
- IV/IO access

Rhythm shockable?
Yes
No

Shock

Epinephrine ASAP

CPR 2 min
- IV/IO access
- Epinephrine every 3-5 min
- Consider advanced airway, capnography

Rhythm shockable?
Yes
No

CPR 2 min
- Epinephrine every 3-5 min
- Consider advanced airway, capnography

Rhythm shockable?
Yes
No

CPR 2 min
- Amiodarone or lidocaine
- Treat reversible causes

Rhythm shockable?
Yes
No

If no signs of return of spontaneous circulation (ROSC), go to 10 or 11
- If ROSC, go to Post–Cardiac Arrest Care
- Consider appropriateness of continued resuscitation

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Yes

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
- IV access
- 12-Lead ECG if available; don’t delay therapy
- Consider possible hypoxic and toxicologic causes

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

Atropine
If atropine ineffective:
- Transcutaneous pacing and/or
- Dopamine infusion or
- Epinephrine infusion

Consider:
- Expert consultation
- Transvenous pacing

No

Monitor and observe

Assess appropriateness for clinical condition.
Heart rate typically <50/min if bradyarrhythmia.

Doses/Details

Atropine IV dose:
First dose: 1 mg bolus.
Repeat every 3-5 minutes.
Maximum: 3 mg.

Dopamine IV infusion:
Usual infusion rate is 5-20 mcg/kg per minute.
Titrated to patient response; taper slowly.

Epinephrine IV infusion:
2-10 mcg per minute infusion.
Titrated to patient response.

Causes:
- Myocardial ischemia/infarction
- Drugs/toxicologic (e.g., calcium-channel blockers, beta blockers, digoxin)
- Hypoxia
- Electrolyte abnormality (e.g., hyperkalemia)

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Adult Tachycardia With a Pulse Learning Station Checklist

**Adult Tachycardia With a Pulse Algorithm**

1. **Assess appropriateness for clinical condition.** Heart rate typically ≥150/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
   - IV access
   - 12-lead ECG, if available

3. **Persistent tachyarrhythmia causing:**
   - Hypotension?
   - Acutely altered mental status?
   - Signs of shock?
   - Ischemic chest discomfort?
   - Acute heart failure?

4. If refractory, consider
   - Underlying cause
   - Need to increase energy level for next cardioversion
   - Addition of anti-arrhythmic drug
   - Expert consultation

5. **Synchronized cardioversion**
   - If regular narrow complex, consider adenosine

6. **Wide QRS?**
   - Yes
     - **Consider**
       - Adenosine only if regular and monomorphic
       - Antiarrhythmic infusion
       - Expert consultation
   - No

7. **If refractory, consider**
   - Sedation
   - Addition of anti-arrhythmic drug
   - Expert consultation

8. **Vagal maneuvers (if regular)**
   - Adenosine (if regular)
   - β-Blocker or calcium channel blocker
   - Consider expert consultation

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Resuscitation is ongoing during the post-ROSC phase, and many of these activities can occur concurrently. However, if prioritization is necessary, follow these steps:

- **Airway management:**
  - Waveform capnography or capnometry to confirm and monitor endotracheal tube placement

- **Manage respiratory parameters:**
  - Titrating FiO₂ for SpO₂ 92%-98%; start at 10 breaths/min; titrate to PaCO₂ of 35-45 mm Hg
  - Titrating FIO₂ for SpO₂ 92%-98%; start at 10 breaths/min; titrate to PaCO₂ of 35-45 mm Hg

- **Manage hemodynamic parameters:**
  - Administer crystalloid and/or vasopressor or inotrope for goal systolic blood pressure >90 mm Hg or mean arterial pressure >65 mm Hg

These evaluations should be done concurrently so that decisions on targeted temperature management (TTM) receive high priority as cardiac interventions.

- **Emergent cardiac intervention:**
  - Early evaluation of 12-lead electrocardiogram (ECG); consider hemodynamics for decision on cardiac intervention

- **TTM:** If patient is not following commands, start TTM as soon as possible; begin at 32-36°C for 24 hours by using a cooling device with feedback loop

- **Other critical care management:**
  - Continuously monitor core temperature (esophageal, rectal, bladder)
  - Maintain normoxia, normocapnia, euglycemia
  - Provide continuous or intermittent electroencephalogram (EEG) monitoring
  - Provide lung-protective ventilation

**H’s and T’s**

- Hypovolemia
- Hypoxia
- Hydrogen ion (acidosis)
- Hypokalemia/hyperkalemia
- Hypothermia
- Tension pneumothorax
- Tamponade, cardiac
- Toxins
- Thrombosis, pulmonary
- Thrombosis, coronary
Adult Cardiac Arrest Algorithm (VF/pVT/Asystole/PEA)

Start CPR
- Give oxygen
- Attach monitor/defibrillator

Rhythm shockable?

VF/pVT

Shock

CPR 2 min
- IV/IO access

Rhythm shockable?

CPR 2 min
- IV/IO access
- Epinephrine every 3-5 min
- Consider advanced airway, capnography

Rhythm shockable?

CPR 2 min
- Epinephrine every 3-5 min
- Consider advanced airway, capnography

CPR 2 min
- Amiodarone or lidocaine
- Treat reversible causes

Rhythm shockable?

CPR 2 min
- Treat reversible causes

Rhythm shockable?

Asystole/PEA

Epinephrine ASAP

CPR 2 min
- IV/IO access

Rhythm shockable?

CPR 2 min
- IV/IO access
- Consider appropriate ongoing care

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.
- Lidocaine IV/IO dose: First dose: 1-1.5 mg/kg. Second dose: 0.5-0.75 mg/kg.

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

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Maternal Cardiac Arrest

- Team planning should be done in collaboration with the obstetric, neonatal, emergency, anesthesiology, intensive care, and cardiac arrest services.
- Priorities for pregnant women in cardiac arrest should include provision of high-quality CPR and relief of aortocaval compression with lateral uterine displacement.
- The goal of perimortem cesarean delivery is to improve maternal and fetal outcomes.
- Ideally, perform perimortem cesarean delivery in 5 minutes, depending on provider resources and skill sets.

Advanced Airway

- In pregnancy, a difficult airway is common. Use the most experienced provider.
- Provide endotracheal intubation or supraglottic advanced airway.
- Perform waveform capnography or capnometry to confirm and monitor ET tube placement.
- Once advanced airway is in place, give 1 breath every 6 seconds (10 breaths/min) with continuous chest compressions.

Potential Etiology of Maternal Cardiac Arrest

A. Anesthetic complications
B. Bleeding
C. Cardiovascular
D. Drugs
E. Embolic
F. Fever
G. General nonobstetric causes of cardiac arrest (H’s and T’s)
H. Hypertension
Adult Ventricular Assist Device Learning Station Checklist

Adult Ventricular Assist Device Algorithm

Assist ventilation if necessary and assess perfusion
• Normal skin color and temperature?
• Normal capillary refill?

Assess and treat non-LVAD causes for altered mental status, such as
• Hypoxia
• Blood glucose
• Overdose
• Stroke

Assess LVAD function
• Look/listen for alarms
• Listen for LVAD hum

Adequate perfusion?

MAP >50 mm Hg and/or PETCO₂ >20 mm Hg?*

LVAD functioning?

Attempt to restart LVAD
• Driveline connected?
• Power source connected?
• Need to replace system controller?

Do not perform external chest compressions

Perform external chest compressions

Follow local EMS and ACLS protocols

Notify VAD center and/or medical control and transport

*The PETCO₂ cutoff of >20 mm Hg should be used only when an ET tube or tracheostomy is used to ventilate the patient. Use of a supraglottic (eg, King) airway results in a falsely elevated PETCO₂ value.
# Megacode Practice Learning Station Checklist: Case 48

## Tachycardia → VF → Asystole → PCAC

### Student Name __________________________________________ Date of Test ___________________

### Critical Performance Steps

<table>
<thead>
<tr>
<th>Team Leader</th>
<th>Check if done correctly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assigns team member roles</td>
<td></td>
</tr>
<tr>
<td>Ensures high-quality CPR at all times</td>
<td>[ ] Compression rate 100-120/min [ ] Compression depth of ≥2 inches [ ] Chest compression fraction &gt;80% [ ] Chest recoil (optional) [ ] Ventilation (optional)</td>
</tr>
<tr>
<td>Ensures that team members communicate well</td>
<td></td>
</tr>
</tbody>
</table>

### 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, O₂ saturation is monitored, verbalizes need for endotracheal intubation and waveform capnography, and orders laboratory tests
- Considers targeted temperature management

### STOP TEST

<table>
<thead>
<tr>
<th>Test Results</th>
<th>Circle PASS or NR to indicate pass or needs remediation:</th>
<th>PASS</th>
<th>NR</th>
</tr>
</thead>
</table>

| Instructor Initials _________ | Instructor Number ___________________________ | Date ____________________ |

### Learning Station Competency

- □ Bradycardia
- □ Tachycardia
- □ Cardiac Arrest/Post–Cardiac Arrest Care
- □ Megacode Practice

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# Megacode Practice Learning Station Checklist: Case 49/52/57/60/62

**Tachycardia → VF → PEA → PCAC**

Student Name ______________________________ Date of Test __________________

## Critical Performance Steps

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<th>Team Leader</th>
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<tr>
<td>Assigns team member roles</td>
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</tr>
<tr>
<td>Ensures high-quality CPR at all times</td>
<td>Compression rate 100-120/min ☐</td>
</tr>
<tr>
<td>Ensures that team members communicate well</td>
<td></td>
</tr>
</tbody>
</table>

## Tachycardia Management
- Starts oxygen if needed, places monitor, starts IV
- Places monitor leads in proper position
- Recognizes unstable 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

## 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, O₂ saturation is monitored, verbalizes need for endotracheal intubation and waveform capnography, and orders laboratory tests
- Considers targeted temperature management

## STOP TEST

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

<table>
<thead>
<tr>
<th>Instructor Initials</th>
<th>Instructor Number</th>
<th>Date</th>
</tr>
</thead>
</table>

**Learning Station Competency**
- Bradycardia
- Tachycardia
- Cardiac Arrest/Post–Cardiac Arrest Care
- Megacode Practice

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**Megacode Practice Learning Station Checklist: Case 50**

**Bradycardia → Pulseless VT → Asystole → PCAC**

Student Name __________________________________________ Date of Test ___________________

<table>
<thead>
<tr>
<th>Critical Performance Steps</th>
<th>Check if done correctly</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Team Leader</strong></td>
<td></td>
</tr>
<tr>
<td>Assigns team member roles</td>
<td></td>
</tr>
<tr>
<td>Ensures high-quality CPR at all times</td>
<td>✔️ ✔️ ✔️ ✔️</td>
</tr>
<tr>
<td>Compression rate 100-120/min</td>
<td>✔️</td>
</tr>
<tr>
<td>Compression depth of ≥2 inches</td>
<td>✔️</td>
</tr>
<tr>
<td>Chest compression fraction &gt;80%</td>
<td>✔️</td>
</tr>
<tr>
<td>Chest recoil (optional)</td>
<td>✔️</td>
</tr>
<tr>
<td>Ventilation (optional)</td>
<td>✔️</td>
</tr>
<tr>
<td>Ensures that team members communicate well</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bradycardia Management</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Starts oxygen if needed, places monitor, starts IV</td>
<td>✔️</td>
</tr>
<tr>
<td>Places monitor leads in proper position</td>
<td>✔️</td>
</tr>
<tr>
<td>Recognizes symptomatic bradycardia</td>
<td>✔️</td>
</tr>
<tr>
<td>Administers correct dose of atropine</td>
<td>✔️</td>
</tr>
<tr>
<td>Prepares for second-line treatment</td>
<td>✔️</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pulseless VT Management</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Recognizes pVT</td>
<td>✔️</td>
</tr>
<tr>
<td>Clears before analyze and shock</td>
<td>✔️</td>
</tr>
<tr>
<td>Immediately resumes CPR after shocks</td>
<td>✔️</td>
</tr>
<tr>
<td>Appropriate airway management</td>
<td>✔️</td>
</tr>
<tr>
<td>Appropriate cycles of drug–rhythm check/shock–CPR</td>
<td>✔️</td>
</tr>
<tr>
<td>Administers appropriate drug(s) and doses</td>
<td>✔️</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Asystole Management</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognizes asystole</td>
<td>✔️</td>
</tr>
<tr>
<td>Verbalizes potential reversible causes of asystole (H’s and T’s)</td>
<td>✔️</td>
</tr>
<tr>
<td>Administers appropriate drug(s) and doses</td>
<td>✔️</td>
</tr>
<tr>
<td>Immediately resumes CPR after rhythm and pulse checks</td>
<td>✔️</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Post–Cardiac Arrest Care</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Identifies ROSC</td>
<td>✔️</td>
</tr>
<tr>
<td>Ensures BP and 12-lead ECG are performed, O₂ saturation is monitored, verbalizes need for endotracheal intubation and waveform capnography, and orders laboratory tests</td>
<td>✔️</td>
</tr>
<tr>
<td>Considers targeted temperature management</td>
<td>✔️</td>
</tr>
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**STOP TEST**

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<tr>
<th>Test Results</th>
<th>Circle PASS or NR to indicate pass or needs remediation:</th>
<th>PASS</th>
<th>NR</th>
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<tbody>
<tr>
<td>Instructor Initials _________</td>
<td>Instructor Number ___________________________</td>
<td>Date _________</td>
<td></td>
</tr>
</tbody>
</table>

**Learning Station Competency**

- [ ] Bradycardia
- [ ] Tachycardia
- [ ] Cardiac Arrest/Post–Cardiac Arrest Care
- [ ] Megacode Practice

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Megacode Practice Learning Station Checklist: Case 51/54
Bradycardia → Pulseless VT → PEA → PCAC

Student Name __________________________________________ Date of Test ___________________

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<thead>
<tr>
<th>Critical Performance Steps</th>
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<tr>
<td><strong>Team Leader</strong></td>
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</tr>
<tr>
<td>Assigns team member roles</td>
<td></td>
</tr>
<tr>
<td>Ensures high-quality CPR at all times</td>
<td></td>
</tr>
<tr>
<td>Compression rate 100-120/min</td>
<td>☐</td>
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<tr>
<td>Compression depth of ≥2 inches</td>
<td>☐</td>
</tr>
<tr>
<td>Chest compression fraction &gt;80%</td>
<td>☐</td>
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<tr>
<td>Chest recoil (optional)</td>
<td>☐</td>
</tr>
<tr>
<td>Ventilation (optional)</td>
<td>☐</td>
</tr>
<tr>
<td>Ensures that team members communicate well</td>
<td></td>
</tr>
</tbody>
</table>

| 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, O₂ saturation is monitored, verbalizes need for endotracheal intubation and waveform capnography, and orders laboratory tests |                         |
| Considers targeted temperature management              |                         |

**STOP TEST**

<table>
<thead>
<tr>
<th>Test Results</th>
<th>Circle PASS or NR to indicate pass or needs remediation:</th>
<th>PASS</th>
<th>NR</th>
</tr>
</thead>
</table>

| Instructor Initials _______ | Instructor Number ___________________________ | Date ________ |

**Learning Station Competency**

☐ Bradycardia ☐ Tachycardia ☐ Cardiac Arrest/Post–Cardiac Arrest Care ☐ Megacode Practice

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### Megacode Practice Learning Station Checklist: Case 53
**Tachycardia → VF → Asystole → PCAC**

<table>
<thead>
<tr>
<th>Critical Performance Steps</th>
<th>Check if done correctly</th>
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<tr>
<td><strong>Team Leader</strong></td>
<td></td>
</tr>
<tr>
<td>Assigns team member roles</td>
<td></td>
</tr>
<tr>
<td>Ensures high-quality CPR at all times</td>
<td></td>
</tr>
<tr>
<td>Compression rate: 100-120/min</td>
<td>☐</td>
</tr>
<tr>
<td>Compression depth of ≥2 inches</td>
<td>☐</td>
</tr>
<tr>
<td>Chest compression fraction &gt;80%</td>
<td>☐</td>
</tr>
<tr>
<td>Chest recoil (optional)</td>
<td>☐</td>
</tr>
<tr>
<td>Ventilation (optional)</td>
<td>☐</td>
</tr>
<tr>
<td>Ensures that team members communicate well</td>
<td></td>
</tr>
<tr>
<td><strong>Tachycardia Management</strong></td>
<td></td>
</tr>
<tr>
<td>Starts oxygen if needed, places monitor, starts IV</td>
<td></td>
</tr>
<tr>
<td>Places monitor leads in proper position</td>
<td></td>
</tr>
<tr>
<td>Recognizes unstable tachycardia</td>
<td></td>
</tr>
<tr>
<td>Recognizes symptoms due to tachycardia</td>
<td></td>
</tr>
<tr>
<td>Performs immediate synchronized cardioversion</td>
<td></td>
</tr>
<tr>
<td><strong>VF Management</strong></td>
<td></td>
</tr>
<tr>
<td>Recognizes VF</td>
<td></td>
</tr>
<tr>
<td>Clears before analyze and shock</td>
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</table>

### STOP TEST

<table>
<thead>
<tr>
<th>Test Results</th>
<th>Circle <strong>PASS</strong> or <strong>NR</strong> to indicate pass or needs remediation:</th>
<th>PASS</th>
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<tbody>
<tr>
<td>Instructor Initials _______</td>
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**Learning Station Competency**

- Bradycardia
- Tachycardia
- Cardiac Arrest/Post–Cardiac Arrest Care
- Megacode Practice

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# Megacode Practice Learning Station Checklist: Case 55/58

**Tachycardia → Pulseless VT → PEA → PCAC**

Student Name __________________________________________ Date of Test ___________________

## Critical Performance Steps

<table>
<thead>
<tr>
<th>Team Leader</th>
<th>Check if done correctly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assigns team member roles</td>
<td>✔️</td>
</tr>
<tr>
<td>Ensures high-quality CPR at all times</td>
<td>✔️ ✔️ ✔️ ✔️</td>
</tr>
</tbody>
</table>

Ensures that team members communicate 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, O₂ saturation is monitored, verbalizes need for endotracheal intubation and waveform capnography, and orders laboratory tests
- Considers targeted temperature management

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**STOP TEST**

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Instructor Initials _________ Instructor Number __________________________ Date __________________

### Learning Station Competency

- [ ] Bradycardia  
- [ ] Tachycardia  
- [ ] Cardiac Arrest/Post–Cardiac Arrest Care  
- [ ] Megacode Practice

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### 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
- 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, O₂ saturation is monitored, verbalizes need for endotracheal intubation and waveform capnography, and orders laboratory tests
- Considers targeted temperature management

### Critical Performance Steps

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<tr>
<th></th>
<th>Compression rate 100-120/min</th>
<th>Compression depth ≥2 inches</th>
<th>Chest compression fraction &gt;80%</th>
<th>Chest recoil (optional)</th>
<th>Ventilation (optional)</th>
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<tbody>
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Ensures that team members communicate well

### Bradycardia
- Bradycardia

### VF
- VF

### Asystole
- Asystole

### PCAC
- PCAC

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### Learning Station Competency
- Bradycardia
- Tachycardia
- Cardiac Arrest/Post–Cardiac Arrest Care
- Megacode Practice

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Megacode Practice Learning Station Checklist: Case 61
Tachycardia → VF → PEA → PCAC

Student Name ___________________________ Date of Test ___________________

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| **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, O₂ saturation is monitored, verbalizes need for endotracheal intubation and waveform capnography, and orders laboratory tests |                         |
| Considers targeted temperature management |                         |

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