Practical Teaching for Respiratory Arrest with a Pulse (Case 1)

You are a medical officer doing a pre-operative round when 60-year old patient started coughing violently and becomes unconscious. Fortunately you have a nurse with you.

<table>
<thead>
<tr>
<th>Trainee Action</th>
<th>Instructor Action</th>
<th>Completed (x or √)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perform initial steps of the universal algorithm:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Assess Responsiveness</td>
<td>• Unresponsive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Call for Help</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Call for Defibrillator</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2. Perform initial steps of the primary ABC survey.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Airway - open airway</td>
<td>• No Breathing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Breathing - Look, listen &amp; feel</td>
<td>• Pulse present</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Circulation - Feel carotid artery</td>
<td>• Resuscitation trolley is available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Assess rhythm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Using quick look defibrillator paddles</td>
<td>• Select Sinus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Or</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Attach to ECG lead as soon as possible</td>
<td></td>
<td></td>
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<tr>
<td>4. Initial rescue breathing by Bag-valve mask</td>
<td>• Patient cyanosed</td>
<td></td>
<td></td>
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<tr>
<td>• Reassess adequacy of ventilation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Intubate at once</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Confirm tube placement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Establish iv access</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Antecubital or external jugular vein</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Normal saline solution</td>
<td></td>
<td></td>
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<tr>
<td>7. Monitor vital signs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Evaluate for causes of problem</td>
<td></td>
<td></td>
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<tr>
<td>• Arrange for further ventilatory support</td>
<td></td>
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</tbody>
</table>

Observations:
Practical Teaching for Witnessed VF Adult Cardiac Arrest (Case 2)

A 55 year old man is visiting his mother, a patient in the general medicine ward. He suddenly grasps his chest, and falls slowly to the floor.

<table>
<thead>
<tr>
<th>Trainee Action</th>
<th>Instructor Action</th>
<th>Completed (x or √)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perform initial steps of the universal algorithm:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Assess Responsiveness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Call for Help</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Call for Defibrillator</td>
<td>• Unresponsive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Perform initial steps of the primary ABC survey.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Airway - open airway</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Breathing - Look, listen &amp; feel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Circulation - Feel carotid artery</td>
<td>• No Breathing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• No Pulse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Perform CPR immediately, until defibrillator is available</td>
<td>• Resuscitation trolley is available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Assess rhythm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Using quick look defibrillator paddles Or</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Attach to ECG lead as soon as possible</td>
<td>• Select VF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Immediate defibrillation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Apply gel or pads to patient</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Apply defibrillator paddles to patient</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Check synchronizer switch OFF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Charge to 360 J (monophasic) or 150-200 J (biphasic) (First shock must be within 60 sec)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Confirm rhythm is VF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Shout “Stand clear” and shock patient</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Reinitiate CPR immediately after shock (at least for 1 – 2 mins)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Look at the rhythm again after a few moments</td>
<td>• Select Sinus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Check pulse &amp; check respiration</td>
<td>• pulse present, no breathing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Intubate at once (1st rescuer)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Confirm tube placement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Establish iv access</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Antecubital or external jugular vein</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>• Normal saline solution</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9. Provide Medications appropriate for blood pressure, heart rate and rhythm
   • Transfer to CCU with Lignocaine infusion

Observations:

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
Practical Teaching for Refractory VF/Pulseless VT (Case 3)

A 60 year old woman collapsed in the A & E department while a 12 lead ECG was done for her. You are the only Medical Officer at around and you have a nurse to assist you.

<table>
<thead>
<tr>
<th>Trainee Action</th>
<th>Instructor Action</th>
<th>Completed (x or √)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perform initial steps of the universal algorithm:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Assess Responsiveness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Call for Help</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Call for Defibrillator</td>
<td></td>
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<tr>
<td>2. Perform initial steps of the primary ABC survey.</td>
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<tr>
<td>• Airway - open airway</td>
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<td>• Breathing - Look, listen &amp; feel</td>
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<tr>
<td>• Circulation - Feel carotid artery</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Perform CPR immediately, until defibrillator is available</td>
<td></td>
<td></td>
<td>Resuscitation trolley is available</td>
</tr>
<tr>
<td>4. Assess rhythm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Using quick look defibrillator paddles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Or</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Attach to ECG lead as soon as possible</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Immediate defibrillation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Apply gel or pads to patient</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Apply defibrillator paddles to patient</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Check synchronizer switch OFF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Charge to 360 J (monophasic) or 150 - 200 J (biphasic) (First shock must be within 60 sec)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Confirm rhythm is VF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Shout “Stand clear” then shock patient</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>• Reinitiate CPR immediately after shock (at least for 1 – 2 mins)</td>
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<tr>
<td>• Look at the rhythm again after a few moments</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>• Continue CPR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Intubate at once</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Confirm tube placement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Establish iv access</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Antecubital or external jugular vein</td>
<td></td>
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<tr>
<td>• Normal saline solution</td>
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<tr>
<td>8. Adrenaline 1 mg IV push</td>
<td></td>
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<tr>
<td>• Give 1 mg diluted in 10 ml of normal saline (1:10,000 dilution) via IV / Intraosseous (IO) / Central Line Access</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trainee Action</td>
<td>Instructor Action</td>
<td>Completed (x or √)</td>
<td>Comments</td>
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<tr>
<td>----------------</td>
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</tr>
<tr>
<td>9. Continue CPR for 30 – 60 secs after drug administration</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>10. Defibrillate within 30-60 sec after drug administration</td>
<td>• Check synchronizer switch <strong>OFF</strong></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>• Charge energy level</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>(a) <strong>Monophasic – Use 360 J</strong></td>
<td></td>
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<tr>
<td></td>
<td>(b) <strong>Biphasic – 1st shock of 150 – 200J. Subsequent shocks to escalate to the maximum (as per the defib model)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Confirm rhythm is VF</td>
<td>Inform trainee that rhythm is still in VF</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Shout “Stand clear” then shock patient</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Reinitiate CPR immediately after shock (at least for 1 – 2 mins)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Look at the rhythm again</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Continue CPR</td>
<td>Inform trainee that rhythm is still in VF, Select VF</td>
<td></td>
</tr>
<tr>
<td>11. Adrenaline 1 mg iv push</td>
<td>• Give 1 mg diluted in 10 ml of normal saline via IV / IO / Central Line</td>
<td>If iv access delayed</td>
<td></td>
</tr>
<tr>
<td>12. Continue CPR for 30 – 60 secs</td>
<td>• <strong>Defibrillate at 150 - 360J</strong> within 30-60 sec after drug administration</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Reinitiate CPR immediately after shock (at least for 1 – 2 mins)</td>
<td>rhythm is still in VF</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Look at the rhythm again</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Continue CPR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. IV Lignocaine 50 – 100 mg bolus or IV Amiodarone 300 mg bolus</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>14. Continue CPR for 30 - 60 secs</td>
<td>• Defibrillate at 150 - 360J within 30-60 sec after drug administration</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Reinitiate CPR immediately after shock (at least for 1 – 2 mins)</td>
<td>rhythm is still in VF</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Look at the rhythm again</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Continue CPR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. IV Lignocaine 50 – 100 mg bolus or IV Amiodarone 150 mg bolus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Continue CPR for 30 - 60 secs</td>
<td>• Defibrillate at <strong>150 - 360J</strong> within 30-60 sec after drug administration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trainee Action</td>
<td>Instructor Action</td>
<td>Completed (x or √)</td>
<td>Comments</td>
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<tr>
<td>------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>• Reinitiate CPR immediately after shock (at least for 1 – 2 mins)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Look at the rhythm again</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Continue CPR</td>
<td></td>
<td></td>
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<tr>
<td>17. Consider:</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>• IV Magnesium sulfate 1-2 gm over 5 mins</td>
<td>• Torsades de pointes</td>
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<tr>
<td>18. Check pulse &amp; check respiration</td>
<td>Pulse present, no breathing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Support Airway &amp; Breathing</td>
<td></td>
<td></td>
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<tr>
<td>20. Provide Medications Appropriate for Blood Pressure</td>
<td></td>
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</tr>
<tr>
<td>• Transfer to CCU with Lignocaine infusion / Amiodarone 150 mg</td>
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</tbody>
</table>

Observations:

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__________________________________________________________________________

__________________________________________________________________________
Practical Teaching for Pulseless Electrical Activity (Case 4)

You are called to attend a patient found collapsed in the Ward. He was admitted 2 days ago for exacerbation of Chronic Obstructive Airway Disease. You have a nurse to assist you.

<table>
<thead>
<tr>
<th>Trainee Action</th>
<th>Instructor Action</th>
<th>Completed (✓ or ✗)</th>
<th>Comments</th>
</tr>
</thead>
</table>
| 1. Perform initial steps of the universal algorithm:  
  - Assess Responsiveness  
  - Call for Help  
  - Call for Defibrillator | Unresponsive | | |
| 2. Perform initial steps of the primary ABC survey.  
  - Airway - open airway  
  - Breathing - Look, listen & feel  
  - Circulation - Feel carotid artery | No Breathing  
  - No Pulse | | |
| 3. Perform CPR immediately, until defibrillator is available | Resuscitation trolley is available | | |
| 4. Assess rhythm  
  - using quick look defibrillator paddles or  
  - attach to ECG lead as soon as possible | Select junctional/Sinus rhythm | | |
| 5. Intubate at once  
  - Confirm tube placement | | | |
| 6. Establish iv access  
  - antecubital or external jugular vein  
  - normal saline solution | | | |
| 7. Consider possible causes:  
  - Hypovolemia  
    - history of vomiting, bleeding GIT  
  - Hypoxia  
    - history of COPD  
  - Hydrogen ion-acidosis  
    - Prolonged illness, metabolic problems  
  - Hyperkalemia  
    - history of renal failure, calcium intake, ECG peaked T, wide QRS, Sine wave  
  - Hypothermia  
    - history of cold water drowning  
  - “Tablets”  
    - Drug overdose, history of ingestion, pill bottle, young patient  
  - Thrombosis, coronary (ACS)  
    - AMI, STEMI  
  - Massive pulmonary embolism  
    - history of recent operation, use of oral contraceptive, pleuritic chest pain | | | |
<table>
<thead>
<tr>
<th>Trainee Action</th>
<th>Instructor Action</th>
<th>Completed (x or √)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tension pneumothorax</td>
<td>history of COPD, chest injury. Neck veins distended, trachea deviation, unilateral breath sound diminish</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tamponade, Cardiac</td>
<td>history of DXT, uremia, chest pain, Neck veins distended, normal breath sound</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. Continue CPR if iv access is delayed
   Adrenaline 1 mg iv push
   - Give 1 mg diluted in 10 ml of normal saline (1:10,000 dilution) via IV / IO / Central Line

9. Specific treatment
   - Fluid infusion
   - Ventilation
   - Pericardiocentesis
   - Needle decompression
   - Thrombolytic or surgery
   - Calcium chloride, bicarbonate, insulin-glucose
   - Specific antidote or treatment
   - Hypovolemia
   - Hypoxia
   - Cardiac Tamponade
   - Tension pneumothorax
   - Pulmonary embolism
   - Hyperkalemia
   - Drug overdose

10. Prolonged resuscitation
    - Adrenaline 1mg IV push every 3-5 mins
    - Bicarbonate infusion is not recommended as a routine agent. It may be used judiciously in severe metabolic acidosis, hyperkalemia or TCA poisoning. When used, the initial dose is 1-1.5 ml mEq/kg of 8.4% solution

Observations:
**Practical Teaching for Asystole (Case 5)**

A 55 year old patient is admitted to Medical Ward for chest pain. Patient becomes unresponsive. You are Medical Officer of the ward. You have a nurse to assist you.

<table>
<thead>
<tr>
<th>Trainee Action</th>
<th>Instructor Action</th>
<th>Completed (x or ✓)</th>
<th>Comments</th>
</tr>
</thead>
</table>
| 1. Perform initial steps of the universal algorithm:  
  - Assess Responsiveness  
  - Call for Help  
  - Call for Defibrillator |  
  - Unresponsive | | |
| 2. Perform initial steps of the primary ABC survey.  
  - Airway - open airway  
  - Breathing - Look, listen & feel  
  - Circulation - Feel carotid artery |  
  - No Breathing  
  - No Pulse | | |
| 3. Perform CPR immediately, until defibrillator is available |  
  - Resuscitation trolley is available | | |
| 4. Assess rhythm  
  - using quick look defibrillator paddles or  
  - attach to ECG lead as soon as possible  
  - confirm Asystole in another lead |  
  - Select Asystole | | |
| 5. Intubate at once  
  - Confirm tube placement | | | |
| 6. Establish iv access  
  - antecubital or external jugular vein  
  - normal saline solution | | | |
| 7. Consider possible causes:  
  - Hypoxia  
  - Hypokalemia  
  - Hyperkalemia  
  - Hypothermia  
  - Acidosis  
  - Drug overdose |  
  - history of COPD  
  - CRF  
  - history of cold water drowning  
  - Tricyclic Antidepressant, history of ingestion, pill bottle | | |
| 8. Continue CPR  
  Adrenaline 1 mg IV push  
  **Give 1 mg diluted in 10 ml of normal saline (1:10,000 dilution) via IV / IO / Central Line** |  
  - If iv access delayed | | |
### Trainee Action

<table>
<thead>
<tr>
<th>9. Specific treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Ventilation</td>
</tr>
<tr>
<td>• Calcium chloride, bicarbonate, insulin-glucose</td>
</tr>
<tr>
<td>• Specific antidote or treatment</td>
</tr>
</tbody>
</table>

### Instructor Action

<table>
<thead>
<tr>
<th>9. Specific treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Hypoxia</td>
</tr>
<tr>
<td>• Hyperkalemia</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10. Prolonged resuscitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Adrenaline 1mg iv push every 3-5 mins</td>
</tr>
<tr>
<td>• Bicarbonate infusion is not recommended as a routine agent. It may be used judiciously in severe metabolic acidosis, hyperkalemia or TCA poisoning. When used, the initial dose is 1-1.5 ml mEq/kg of 8.4% solution</td>
</tr>
</tbody>
</table>

### Completed (x or √) | Comments |

<table>
<thead>
<tr>
<th>9. Specific treatment</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Prolonged resuscitation</td>
<td></td>
</tr>
</tbody>
</table>

Observations:

________________________________________________________________________

________________________________________________________________________
Practical Teaching for Bradycardia (Case 6)

You are at A & E, attending to a 67 year old woman complain of chest pain. You have a nurse to assist you.

<table>
<thead>
<tr>
<th>Trainee Action</th>
<th>Instructor Action</th>
<th>Completed (x or □)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perform initial steps of the universal algorithm:</td>
<td>• Conscious</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Assess Responsiveness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Call for Help</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Call for Defibrillator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Perform initial steps of the primary ABC survey.</td>
<td>• Breathing normal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Airway - open airway</td>
<td>• Pulse present</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Breathing - Look, listen &amp; feel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Circulation - Feel carotid artery</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Give oxygen via face mask</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Establish iv access</td>
<td>• Resuscitation trolley is available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• antecubital or external jugular vein</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• normal saline solution</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Assess rhythm</td>
<td>• select 3rd degree heart block</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• attach to ECG lead as soon as possible</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Monitor vital sign</td>
<td>• B.P. 126/50, H.R. 42, RR 12 bpm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Check for serious signs and symptoms</td>
<td>• Haemodynamically stable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Symptoms - chest pain, shortness of breath, giddiness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Signs - confused, pulmonary congestion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Do 12 lead ECG</td>
<td>• Select decrease rate to 30 bpm</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Inform trainee that patient is confused (Pale, sweaty, BP 80/40 mm Hg)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Atropine 0.6 mg IV. May be repeated at 3 – 5 min intervals up to a max dose of 2.4 mg</td>
<td>• Patient Stabilised</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Transcutaneous pacing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Dopamine 2-20 mcg/kg/min</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>• Adrenaline 2 to 10 mcg/min Infusion</td>
<td></td>
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</tr>
</tbody>
</table>

Observations: ____________________________________________________________

__________________________________________________________

__________________________________________________________

1 June 2011
Page 11 of 15
A 55 year old woman presents to the emergency department complaining of palpitations and mild chest discomfort. You are the Medical Officer on duty and you have a nurse to assist you.

<table>
<thead>
<tr>
<th>Trainee Action</th>
<th>Instructor Action</th>
<th>Completed (x or □)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perform initial steps of the universal algorithm:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Assess Responsiveness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Call for Help</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Call for Defibrillator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Perform initial steps of the primary ABC survey.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Airway - open airway</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Breathing - Look, listen &amp; feel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Circulation - Feel carotid artery</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Give oxygen via face mask</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Establish iv access</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• antecubital or external jugular vein</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• normal saline solution</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Resuscitation trolley is available</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Assess rhythm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• attach to ECG lead as soon as possible</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Assess the vital signs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Do a 12 lead ECG</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. IV Lignocaine 50 - 100 mg over 2 min or IV Amiodarone 150 mg over 10 – 15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mins</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Check vital sign</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Repeat IV Lignocaine 50 – 100 mg over 2 min or IV Amiodarone 150 mg over 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mins</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Check vital signs</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>9.</td>
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<tr>
<td>• If not definite or equivocal VT: IV Adenosine 6 mg rapid iv push, repeat IV</td>
<td></td>
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<tr>
<td>Adenosine 12 mg rapid iv push if not converted</td>
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<td></td>
</tr>
<tr>
<td>• check vital signs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Prepare for immediate cardioversion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• IV sedation, hyperventilate patient</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Immediate synchronised cardioversion</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Trainee Action
- Apply gel or pads to patient
- Apply defibrillator paddles to patient
- Check synchronizer switch *ON*
- Charge to 100 J
- Confirm rhythm is VT
- Shout “Stand clear” then shock patient
- Evaluate outcome

### Instructor Action
- Select Sinus
- Present
- BP 100/60
- No Respiration
- Patient cyanosed

### Completed (x or ☑)

### Comments

### Observations:

---

<table>
<thead>
<tr>
<th>Trainee Action</th>
<th>Instructor Action</th>
<th>Completed (x or ☑)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Check pulse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Ask Team member to check blood pressure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Check breathing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Open airway</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Intubate patient at once</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Monitor vital signs</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Arrange for mechanical ventilation and transfer to ICU with antiarrhythmic drug therapy. (IV lignocaine infusion)
Practical Teaching for Narrow Complex Tachycardia (Case 8)

A 54 year old woman presents to the emergency department complaining of palpitations for 2 days, with a pulse of 180 bpm. You are the Medical Officer on duty and you have a nurse to assist you.

<table>
<thead>
<tr>
<th>Trainee Action</th>
<th>Instructor Action</th>
<th>Completed (x or √)</th>
<th>Comments</th>
</tr>
</thead>
</table>
| 1. Perform initial steps of the universal algorithm:  
  - Assess Responsiveness  
  - Call for Help  
  - Call for Defibrillator | • Responsive | | |
| 2. Perform initial steps of the primary ABC survey.  
  - Airway - open airway  
  - Breathing - Look, listen & feel  
  - Circulation - Feel carotid artery | • Breathing normal  
  • Carotid pulse felt  
  • Resuscitation trolley is available | | |
| 3. Assess rhythm  
  • attach to ECG lead as soon as possible | • Select SVT | | |
| 4. Ask team member to check blood pressure.  
  • Ask patient whether she has shortness of breath and chest pain | • BP: 130/80 | | |
| 5. Give oxygen via face mask | | | |
| 6. Establish iv access  
  • antecubital or external jugular vein  
  • normal saline solution | | | |
| 7. Do a 12 lead ECG | • ECG: SVT rate 180 p/min | | |
| 8. Vagal maneuver  
  • Carotid sinus massage  
  • Valsalva manoeuver | • Not converted | | |
| 9.  
  • IV Adenosine 6 mg flush iv line with 20 ml of normal saline  
  • IV Adenosine 12 mg flush iv line with 20 ml of normal saline  
  • IV Verapamil 1 mg / min (up to max 20 mg) | • Not converted  
  • Converted but recur  
  • 15 min later, not converted | | |
<p>| 10. Check BP | • BP: 70/60 | | |</p>
<table>
<thead>
<tr>
<th>Trainee Action</th>
<th>Instructor Action</th>
<th>Completed (x or √)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Prepare for immediate synchronised cardioversion</td>
<td>▪ IV sedation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ Apply gel or pads to patient</td>
<td>▪ Apply defibrillator paddles to patient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ Check synchronizer switch <strong>ON</strong></td>
<td>▪ Charge to 50 J</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ Confirm rhythm is SVT</td>
<td>▪ Shout “Stand clear” then shock patient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ Evaluate outcome [if not converted, perform synchronised cardioversion 100J, 200J]</td>
<td>▪ Select Sinus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Check pulse</td>
<td>▪ Present</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Ask Team member to check blood pressure</td>
<td>▪ BP 100/60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Check breathing</td>
<td>▪ Respiration present</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Assess responsiveness</td>
<td>▪ Regain conscious</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Oxygen via face mask</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Transfer to CCU</td>
<td></td>
<td></td>
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</tbody>
</table>

**Observations:**