

American Heart Association

Advanced Cardiovascular Life Support

Written Precourse Self-Assessment

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October 2006

Using the print version of the ACLS Precourse Self-Assessment

Purpose

Precourse preparation is essential to the success of students coming to an ACLS course. With the release of the 2006 ACLS materials, tools were provided to assist students in this preparation. The Precourse Self-assessment included on the Student CD is the desired method of preparation, giving the student the challenge and opportunity to repeatedly review and test themselves. Students are to be encouraged to use this tool if at all possible. Additional guidance for opening and using the CD have been provided. Course directors are asked encourage students to use the CD, and to look for options for computer use such as local libraries.

Using the Printed Self-Assessment

When all options to use the Student CD with the ACLS Precourse Self-assessment have been exhausted, this alternative Written Precourse Self-Assessment can be used. It is not intended to be sent with every precourse package.

It is not a “pretest”. Students are asked to bring the completed materials only to encourage preparation, not to determine a specific “grade” or score.

Support Help for ACLS Student CD and Frequently Asked Questions

What system requirements do I need to use this CD?

Your computer system must meet the software and hardware system requirements for:

Instructions:

This CD-ROM will auto-launch when the CD has been inserted. If Autorun has been disabled on your computer, you can right mouse click on the CD drive and choose "Explore" (Windows PC user). Double click on "PC_start.exe" to launch the CD. For the Mac user, find and click on "index.html" to start.

Precourse Self-Assessment Test is PC compatible only and requires Adobe Flash Player 8.0 or later, which can be downloaded from www.adobe.com.

System Requirements: Windows

- Pentium III 550 MHz processor or equivalent AMD processor (Pentium 4 recommended)
- Microsoft™ Windows 98, Windows NT 4.0, Windows 2000, Windows XP Professional or Home Edition
- 64 MB of RAM (128 MB recommended)
- 150 MB of available hard-disk space
- Internet Explorer 6.0 Web browser or later
- Minimum screen resolution of 800 x 600 or higher
- CD-ROM drive (8x or faster)
- Sound card and speakers

Macintosh:

- Processor PowerPC iMac, iBook, G3, G4 or faster
- Mac OS 9, OS X or later
- 64 MB of RAM (128 MB recommended)
- 150 MB of available hard-disk space
- Safari/Netscape 4.0 web browser or later
- Minimum screen resolution of 800 x 600 or higher
- CD-ROM drive
- Sound card and speakers

This CD-ROM contains Adobe Acrobat (PDF) and video (MPG) files and a Precourse Self-Assessment program that requires Adobe Flash Player 8.0 or later, which can be downloaded from www.adobe.com.

If you do not own Adobe Acrobat, you can download, for free, Adobe Acrobat Reader from Adobe's Web site:

<http://www.adobe.com/products/acrobat/readstep.html>

The CD will not start. What do I do?

1. Make sure your computer meets the system requirements noted above.
 2. The CD is set to start automatically when inserted, but Autorun may be disabled on your computer. Try one of the following options:
 - o If you use a PC (Windows operating system), right click on the CD drive and select Explore. Double click on PC_start.exe to start the CD.
 - o If you use a Mac, find and click on Mac_start.
- Remove the CD from the tray. You may need to close all applications. Open Internet Explorer first, and then insert the CD.
3. Try to run another CD. If you can run another disc, the problem is with the CD you received. If you cannot run another CD, the problem is likely related to the computer settings.
 4. Make sure the window is open and maximized. Look for the BLS window at the bottom of the screen. Right click on it to maximize.
 5. If you have problems loading the CD on a Mac, hold down the Command, Option, and I keys when inserting the disc.

The CD plays, but it doesn't work right. What do I do?

There are thousands of answers to this question. Here are some basic troubleshooting steps to help you track down problems such as jerky playback, pauses, and error messages.

1. Update your drivers. Driver bugs are the biggest cause of playback problems. These problems range from freezes to bogus error messages about regions. Go to the support section on the website of your software manufacturer, such as Microsoft, and make sure you have the latest decoder drivers. Also make sure you have the latest drivers for your graphics adapter.
2. Empty your Temporary Internet Files folder. Go to Internet Explorer > Tools > Internet Options > General > Delete Files. Click on OK.
3. Turn off programs running in the background.
In Windows, close or exit applets in the system tray (the icons in the lower right corner).
In Mac OS, turn off AppleTalk, file sharing, and virtual memory.

I am using the ACLS Student CD and I cannot access the ACLS Precourse Self-Assessment Test or make the Self Assessment Test work properly.

1. Internet Explorer must be open before the CD is inserted. Remove the CD from the tray; close all other applications, then insert the CD.
2. Download "**Adobe Flash Player**" from www.adobe.com if you do not have it already installed on your computer. Restart the computer after you have installed the Adobe Flash Player
3. If you have a pop-up blocker, remove the CD from the tray, re-insert the CD while holding down the "Ctrl" key so Macromedia Flash can run.
OR you can go to My Computer > Right Click On the CD-ROM drive > Explore> Double Click on PC_Start or MAC_Start
4. Make sure you are using Internet Explorer 6.0 or higher (Not AOL, FireFox, Mozilla or Netscape)
5. Check to make sure Active X Controls are enabled by going to Internet Explorer> Tools> Internet Options> Security Tab> Custom Level> Active X Controls and Plug-ins> Enable
6. Check to make sure "Allow Active Content CDs to run on my Computer" is checked by going to Tools>Internet Options> Advanced Tab> Security
7. If you are in the Self Assessment and it will not allow you to choose an answer:
8. The bubbles before each answer are not active; click on the answer, not the bubble, to choose each answer and proceed with the test.

How do I find out what version of Internet Explorer I have?

1. Open Internet Explorer.
2. Click on Help > About Internet Explorer. The display box will show the version and any updates.

How do I find out if I have the correct service pack?

1. Open Internet Explorer.
2. Click on Help > About Internet Explorer. The display box will show the service pack you have. "Service pack" is abbreviated "SP" and is followed by the version number (1 or 2).

How do I obtain Adobe Reader?

The CD contains Adobe Acrobat (PDF) files. You need Adobe Reader to open these files. To download a free copy of Adobe Reader, go to <http://www.adobe.com/products/acrobat/readstep2.html>.

Can I use another browser, such as Mozilla Firefox?

No, the CD works with Internet Explorer only.

I can't hear any sound. What do I do?

1. Make sure the speakers are turned on and the volume is turned up.
2. Check the Volume and Mute settings on your computer. Make sure Mute is not checked, and adjust Volume as needed. There are multiple ways to check these settings:
 - o Click on the speaker icon in your system tray.
 - o Go to Start > Settings > Control Panel > Sounds and Audio Devices > Volume. Make sure Mute is not checked. Then go to Advanced. Adjust Volume if needed and make sure Mute is not checked.
 - o Go to Start > Programs > Accessories > Entertainment > Volume Control.
3. Make sure the volume on the video clip is turned up. The Volume Control button is located at the bottom of the screen on the left.
- Please note that the Heartsaver Student CD intentionally does not have sound. There is nothing wrong with your computer or the CD if you do not hear sound.

The video clip on the CD doesn't play. What do I do?

1. Verify that your computer has a media player that is compatible with the file type on the CD. Refer to system requirements for more information.
2. Check whether Active X control is blocked:
 - o Open Internet Explorer.
 - o Choose Tools, then Internet Options.
 - o Select the Security tab.
 - o Choose Internet.
 - o Got to Custom Level
 - o Check the Setting for Active X controls or plug ins. This can be changed to enable or disable depending on requirement.
 - o Click Okay.
3. If the video clips still will not play, check with your security administrator. Your system security settings or virus protection software may be the problem.

I cannot open any PDF files on the CD. What do I do?

Make sure you have Adobe installed on your computer, otherwise download Adobe Acrobat Reader from www.adobe.com.

I cannot play the CD or components of the CD more than “two, three, four times”. What do I do?

1. Delete "Temp Files" Internet Explorer > Tools > Internet Options > General > Delete Files. Click on OK
2. Close other programs running in the background
3. Restart the Computer

If prompted, should I select Windows Media Player or QuickTime?

If you are using a PC with Windows or Windows XP, select Windows Media Player.

If you are using a Mac, select QuickTime.

I received a warning message when I inserted the CD. What do I do?

You may receive the following warning: "To help protect your computer security, Internet Explorer has restricted this file from showing active content that could access your computer. Click here for options." This warning alerts you that the file contains content that may harm your computer or disclose personal information. If you want to continue running the CD, click on the window and select "allow blocked content."

Another window will pop up. Check the source of the CD. If you trust the source, click yes to access the blocked content.

I received a message box asking “What do you want Windows to do?” Which action do I choose?

1. Select Play using Windows Media Player.
2. Click on OK

I see menu information on the screen, but nothing has opened. What do I do?

Select the item you want to open. Hold the cursor over the topic and right click to select.

How do I copy files from this CD onto my computer?

1. Double click on My Computer.
2. Right click on this CD and click Explore.
3. Double click on the Contents folder.
4. Highlight or select files needing to be copied.
5. Drag the contents to your desktop.

I cannot download or open files on the CD. What do I do?

You must have the proper software to open the files. Check the system requirements on the CD for the minimum requirements.

- If the file name ends in .doc, you need MS Word.
- If the file name ends in .pdf, you need Adobe Reader. For a free copy of Adobe Reader, go to <http://www.adobe.com/products/acrobat/readstep2.html>

When I open the document, it is too small. How do I make it bigger?

Locate the Zoom button on your toolbar. This button shows the size (or percentage of full size) of the document on your screen. Click on the arrow to access the menu, and select a higher percentage. You can also specify your own size (e.g., 75%). Highlight the current size, enter a new one, and press Enter.

How do I fast forward, rewind, etc?

Use the buttons in your media player to control the CD. Windows Media Player has 6 control buttons (from left to right): Pause, Stop, Previous, Next, Mute, and Volume.

When I click on Stop I get a menu. What do I do?

Below is an explanation of each option. (You can also click on Help to access this menu.)

- **Stop** – automatically returns to the Main Title Menu
- **Exit** – leaves the application without ejecting the CD
- **Resume** – starts the clip from the point where it was stopped
- **Eject** – opens the tray to the CD drive
- **Settings** – manages your CD settings

Why does the picture alternate between light and dark?

This variation may be an effect of Macrovision copy protection. It also could be due to the type of connection you have. There is nothing wrong with your CD.

The video clip often pauses or freezes for a few seconds. Why does this happen, and what do I do?

A frequent cause of pauses and freezes is temporary Internet files. These files often are large. When many are stored on your computer, they can slow down your system. If a pause or freeze continues, empty your Temporary Internet Files folder. Go to Internet Explorer > Tools > Internet Options > General > Delete Files. Click on OK. A pause or freeze may also be due to the type of media player or the layout of the disc and is not caused by a defect.

When I click on Eject, the screen stays on my display. What do I do?

Click Exit to close the window.

Is the CD closed captioned?

No, the CD is not closed captioned.

How do I care for my CD?

CDs are read by a laser, so they are resistant — to a point — to fingerprints, dust, smudges and scratches. But surface contaminants and scratches can cause data errors, so it's a good idea to take care of your discs.

- Handle only at the hub (inner circle) or rim (outer edge). Do not touch the shiny surface with greasy fingers.
- Store in a protective case when not in use. Do not bend the disc when removing it from the case. Be careful not to scratch the disc when placing it in the case or the tray. Make sure the disc is properly seated in the tray before closing.
- Keep away from radiators, heaters, hot equipment surfaces, direct sunlight (near a window or in a car), and other heat sources.
- If you notice problems when playing a disc, try cleaning it. Follow these tips:

Do not use strong cleaners, abrasives, solvents, or acids. Use a soft, lint-free cloth, and wipe gently from the hub (inner circle) to the rim (outer edge). The data is arranged circularly on the disc. By wiping from hub to rim, any scratches you create will cross more error correction blocks and be less likely to cause irreversible errors.

Do not use canned or compressed air. This kind of air can be very cold and may damage the disc.

To remove stubborn dirt or gummy adhesive, use water, water with mild soap, or isopropyl alcohol. As a last resort, try peanut oil. Let it sit for about a minute before wiping it off.

Commercial cleaning products are available. Choose a product labeled for use on CDs. These products can help protect from dust, fingerprints, and scratches.

How do I replace a defective CD?

If your CD needs to be replaced, contact the location where you purchased it, such as your training center or distributor.

If you still have problems after trying these steps, and believe the problem is with the CD and not your computer, call 1-877-AHA-4CPR (1-877-242-4277) between 8:30 a.m. and 5:00 p.m. Monday through Friday, for additional assistance. Please contact your computer manufacturer for assistance with issues related to your computer.

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October 2006

**ACLS Provider Course
 Written Precourse Self-Assessment Answer Sheet**

Name _____

Date _____

Circle the correct answers.

Question	Answer				Question	Answer			
1.	a	b	c	d	16.	a	b	c	d
2.	a	b	c	d	17.	a	b	c	d
3.	a	b	c	d	18.	a	b	c	d
4.	a	b	c	d	19.	a	b	c	d
5.	a	b	c	d	20.	a	b	c	d
6.	a	b	c	d	21.	a	b	c	d
7.	a	b	c	d	22.	a	b	c	d
8.	a	b	c	d	23.	a	b	c	d
9.	a	b	c	d	24.	a	b	c	d
10.	a	b	c	d	25.	a	b	c	d
11.	a	b	c	d	26.	a	b	c	d
12.	a	b	c	d	27.	a	b	c	d
13.	a	b	c	d	28.	a	b	c	d
14.	a	b	c	d	29.	a	b	c	d
15.	a	b	c	d	30.	a	b	c	d

Please fill in the correct rhythm for questions 31 – 40.

31.	_____	36.	_____
32.	_____	37.	_____
33.	_____	38.	_____
34.	_____	39.	_____
35.	_____	40.	_____

ACLS Written 2006 Precourse Self-Assessment

1. **Ten minutes after an 85-year-old woman collapses, paramedics arrive and start CPR for the first time. The monitor shows fine (low-amplitude) VF. Which of the following actions should they take next?**
 - a. Perform at least 5 minutes of vigorous CPR before attempting defibrillation
 - b. Insert an endotracheal tube, administer 2 to 2.5 mg epinephrine in 10 mL NS through the tube and then defibrillate
 - c. Deliver up to 3 precordial thumps while observing the patient's response on the monitor
 - d. Deliver about 2 minutes or 5 cycles of CPR, and deliver a 360-J monophasic or equivalent-current biphasic shock

2. **A cardiac arrest patient arrives in the ED with PEA at 30 bpm. CPR continues, proper tube placement is confirmed, and IV access is established. Which of the following medications is most appropriate to give next?**
 - a. Calcium chloride 5 mL of 10% solution IV
 - b. Epinephrine 1 mg IV
 - c. Synchronized cardioversion at 200 J
 - d. Sodium bicarbonate 1 mEq/kg IV

3. **Which of the following actions helps deliver maximum current during defibrillation?**
 - a. Place alcohol pads between the paddles and skin
 - b. Reduce the pressure used to push down on the defibrillator paddles
 - c. Apply conductive paste to the paddles
 - d. Decrease shock energy after the 2nd shock

4. **Which of the following actions is NOT performed when you “clear” a patient just before defibrillator discharge?**
 - a. Check the person managing the airway: body not touching bag mask or tracheal tube, oxygen not flowing directly onto chest
 - b. Check yourself: hands correctly placed on paddles, body not touching patient or bed
 - c. Check monitor leads: leads disconnected to prevent shock damage to monitor
 - d. Check others: no one touching patient, bed, or equipment connected to patient

5. A woman with a history of narrow-complex PSVT arrives in the ED. She is alert and oriented but pale. HR is 165 bpm, and the ECG documents SVT. BP is 105/70 mm Hg. Supplemental oxygen is provided, and IV access has been established. Which of the following drug-dose combinations is the most appropriate initial treatment?
- Adenosine 6 mg rapid IV push
 - Epinephrine 1 mg IV push
 - Synchronized cardioversion with 25 to 50 J
 - Atropine 1 mg IV push
6. Which of the following facts about identification of VF is true?
- A peripheral pulse that is both weak and irregular indicates VF
 - A sudden drop in blood pressure indicates VF
 - Artifact signals displayed on the monitor can look like VF
 - Turning the signal amplitude ("gain") to zero can enhance the VF signal
7. Endotracheal intubation has just been attempted for a patient in respiratory arrest. During bag-mask ventilation you hear stomach gurgling over the epigastrium but no breath sounds, and oxygen saturation (per pulse oximetry) stays very low. Which of the following is the most likely explanation for these findings?
- Intubation of the esophagus
 - Intubation of the left main bronchus
 - Intubation of the right main bronchus
 - Bilateral tension pneumothorax
8. Which of these statements about IV administration of medications during attempted resuscitation is true?
- Give epinephrine via the intracardiac route if IV access is not obtained within 3 minutes
 - Follow IV medications through *peripheral* veins with a fluid bolus
 - Do not follow IV medications through *central* veins with a fluid bolus
 - Run normal saline mixed with sodium bicarbonate (100 mEq/L) during continuing CPR
9. A 60-year-old man (weight = 50 kg) with recurrent VF has converted from VF again to a wide-complex nonperfusing rhythm after administration of epinephrine 1 mg IV and a 3rd shock. Which of the following drug regimens is most appropriate to give next?
- Amiodarone 300 mg IV push
 - Lidocaine 150 mg IV push
 - Magnesium 3 g IV push, diluted in 10 mL of D₅W
 - Procainamide 20 mg/min, up to a maximum dose of 17 mg/kg

- 10. While treating a patient in persistent VF arrest after 2 shocks, you consider using vasopressin. Which of the following guidelines for use of vasopressin is true?**
- a. Give vasopressin 40 U every 3 to 5 minutes
 - b. Give vasopressin for better vasoconstriction and β -adrenergic stimulation than that provided by epinephrine
 - c. Give vasopressin as an alternative to a first or second dose of epinephrine in shock-refractory VF
 - d. Give vasopressin as the first-line pressor agent for clinical shock caused by hypovolemia
- 11. Which of the following causes of PEA is most likely to respond to immediate treatment?**
- a. Massive pulmonary embolism
 - b. Hypovolemia
 - c. Massive acute myocardial infarction
 - d. Myocardial rupture
- 12. Which of the following drug-dose combinations is recommended as the initial medication to give a patient in asystole?**
- a. Epinephrine 3 mg IV
 - b. Atropine 3 mg IV
 - c. Epinephrine 1 mg IV
 - d. Atropine 0.5 mg IV
- 13. A patient with a heart rate of 40 bpm is complaining of chest pain and is confused. After oxygen, what is the first drug you should administer to this patient while a transcutaneous pacer is brought to the room?**
- a. Atropine 0.5 mg
 - b. Epinephrine 1 mg IV push
 - c. Isoproterenol infusion 2 to 10 μ g/min
 - d. Adenosine 6 mg rapid IV push
- 14. Which of the following statements correctly describes the ventilations that should be provided after endotracheal tube insertion, cuff inflation, and verification of tube position?**
- a. Deliver 8 to 10 ventilations per minute with no pauses for chest compressions
 - b. Deliver ventilations as rapidly as possible as long as visible chest rise occurs with each breath
 - c. Deliver ventilations with a tidal volume of 3 to 5 mL/kg
 - d. Deliver ventilations using room air until COPD is ruled out

15. A patient in the ED reports 30 minutes of severe, crushing, substernal chest pain. BP is 110/70 mm Hg, HR is 58 bpm, and the monitor shows regular sinus bradycardia. The patient has received aspirin 325 mg PO, oxygen 4 L/min via nasal cannula, and 3 sublingual nitroglycerin tablets 5 minutes apart, but he continues to have severe pain. Which of the following agents should be given next?
- Atropine 0.5 to 1 mg IV
 - Furosemide 20 to 40 mg IV
 - Lidocaine 1 to 1.5 mg/kg
 - Morphine sulfate 2 to 4 mg IV
16. Which of the following agents are used frequently in the early management of acute cardiac ischemia?
- Lidocaine bolus followed by a continuous infusion of lidocaine
 - Chewable aspirin, sublingual nitroglycerin, and IV morphine
 - Bolus of amiodarone followed by an oral ACE inhibitor
 - Calcium channel blocker plus IV furosemide
17. A 50-year-old man who is profusely diaphoretic and hypertensive complains of crushing substernal chest pain and severe shortness of breath. He has a history of hypertension. He chewed 2 baby aspirins at home and is now receiving oxygen. Which of the following treatment sequences is most appropriate at this time?
- Morphine then nitroglycerin, but only if morphine fails to relieve the pain
 - Nitroglycerin then morphine, but only if ST elevation is >3 mm
 - Nitroglycerin then morphine, but only if nitroglycerin fails to relieve the pain
 - Nitroglycerin only, because chronic hypertension contraindicates morphine
18. A 50-year-old man has a 3-mm ST elevation in leads V₂ to V₄. Severe chest pain continues despite administration of oxygen, aspirin, nitroglycerin SL × 3, and morphine 4 mg IV. BP is 170/110 mm Hg; HR is 120 bpm. Which of the following treatment combinations is most appropriate for this patient at this time (assume no contraindications to any medication)?
- Calcium channel blocker IV + heparin bolus IV
 - ACE inhibitor IV + lidocaine infusion
 - Magnesium sulfate IV + enoxaparin (Lovenox) SQ
 - Fibrinolytic + heparin bolus IV
19. A 70-year-old woman complains of a moderate headache and trouble walking. She has a facial droop, slurred speech, and difficulty raising her right arm. She takes “several medications” for high blood pressure. Which of the following actions is most appropriate to take at this time?
- Activate the emergency response system; tell the dispatcher you need assistance for a woman who is displaying signs and symptoms of an acute subarachnoid hemorrhage
 - Activate the emergency response system; tell the dispatcher you need assistance for a woman who is displaying signs and symptoms of a stroke
 - Activate the emergency response system; have the woman take aspirin 325 mg and then have her lie down while both of you await the arrival of emergency personnel
 - Drive the woman to the nearby ED in your car

20. **Within 45 minutes of her arrival in the ED, which of the following evaluation sequences should be performed for a 70-year-old woman with rapid onset of headache, garbled speech, and weakness of the right arm and leg?**
- History, physical and neurologic exams, *noncontrast* head CT with radiologist interpretation
 - History, physical and neurologic exams, *noncontrast* head CT, start of fibrinolytic treatment if CT scan is positive for stroke
 - History, physical and neurologic exams, lumbar puncture (LP), *contrast* head CT if LP is negative for blood
 - History, physical and neurologic exams, *contrast* head CT, start fibrinolytic treatment when improvement in neurologic signs is noted
21. **Which of the following rhythms is a proper indication for transcutaneous cardiac pacing?**
- Sinus bradycardia with no symptoms
 - Normal sinus rhythm with hypotension and shock
 - Complete heart block with pulmonary edema
 - Asystole that follows 6 or more defibrillation shocks
22. **Which of the following causes of out-of-hospital asystole is most likely to respond to treatment?**
- Prolonged cardiac arrest
 - Prolonged submersion in warm water
 - Drug overdose
 - Blunt multisystem trauma
23. **A 34-year-old woman with a history of mitral valve prolapse presents to the ED complaining of palpitations. Her vital signs are as follows: HR = 165 bpm, resp = 14 per minute, BP = 118/92 mm Hg, and O₂ sat = 98%. Her lungs sound clear, and she reports no shortness of breath or dyspnea on exertion. The ECG and monitor display a narrow-complex, regular tachycardia. Which of the following terms best describes her condition?**
- Stable tachycardia
 - Unstable tachycardia
 - Heart rate appropriate for clinical condition
 - Tachycardia secondary to poor cardiovascular function
24. **A 75-year-old man presents to the ED with a 1-week history of lightheadedness, palpitations, and mild exercise intolerance. The initial 12-lead ECG displays atrial fibrillation, which continues to show on the monitor at an irregular HR of 120 to 150 bpm and a BP of 100/70 mm Hg. Which of the following therapies is the most appropriate next intervention?**
- Sedation, analgesia, then immediate cardioversion
 - Lidocaine 1 to 1.5mg/kg IV bolus
 - Amiodarone 300 mg IV bolus
 - Seek expert consultation

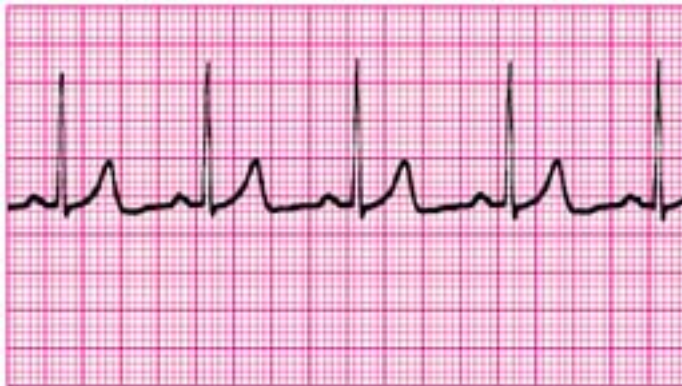
- 25. You prepare to cardiovert an unstable 48-year-old woman with tachycardia. The monitor/defibrillator is in “synchronization” mode. The patient suddenly becomes unresponsive and pulseless as the rhythm changes to an irregular, chaotic, VF-like pattern. You charge to 200 J and press the SHOCK button, but the defibrillator fails to deliver a shock. Why?**
- The defibrillator/monitor battery failed
 - The “sync” switch failed
 - You cannot shock VF in “sync” mode
 - A monitor lead has lost contact, producing the “pseudo-VF” rhythm
- 26. Vasopressin can be recommended for which of the following arrest rhythms?**
- VF
 - Asystole
 - PEA
 - All of the above
- 27. Effective bag-mask ventilations are present in a patient in cardiac arrest. Now, 2 minutes after epinephrine 1 mg IV is given, PEA continues at 30 bpm. Which of the following actions should be done next?**
- Administer atropine 1 mg IV
 - Initiate transcutaneous pacing at a rate of 60 bpm
 - Start a dopamine IV infusion at 15 to 20 µg/kg per minute
 - Give epinephrine (1 mL of 1:10 000 solution) IV bolus
- 28. The following patients were diagnosed with acute ischemic stroke. Which of these patients has NO stated contraindication for IV fibrinolytic therapy?**
- A 65-year-old woman who lives alone and was found unresponsive by a neighbor
 - A 65-year-old man presenting approximately 4 hours after onset of symptoms
 - A 65-year-old woman presenting 1 hour after onset of symptoms
 - A 65-year-old man diagnosed with bleeding ulcers 1 week before onset of symptoms
- 29. A 25-year-old woman presents to the ED and says she is having another episode of PSVT. Her medical history includes an electrophysiologic stimulation study (EPS) that confirmed a reentry tachycardia, no Wolff-Parkinson-White syndrome, and no preexcitation. HR is 180 bpm. The patient reports palpitations and mild shortness of breath. Vagal maneuvers with carotid sinus massage have no effect on HR or rhythm. Which of the following is the most appropriate next intervention?**
- DC cardioversion
 - IV diltiazem
 - IV propranolol
 - IV adenosine

30. A patient with an HR of 30 to 40 bpm complains of dizziness, cool and clammy extremities, and dyspnea. He is in third-degree AV block. All treatment modalities are present. What would you do first?

- a. give atropine 0.5 to 1 mg IV
- b. give epinephrine 1 mg IV push
- c. start dopamine infusion 2 to 10 $\mu\text{g}/\text{min}$
- d. begin immediate transcutaneous pacing, sedate if possible

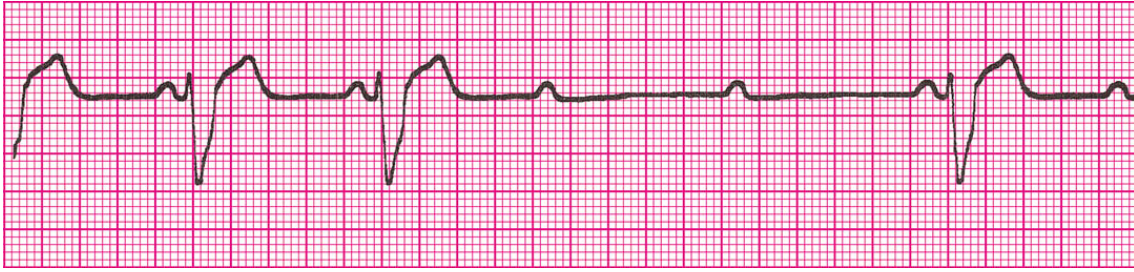
Identify the Following Rhythms

31.



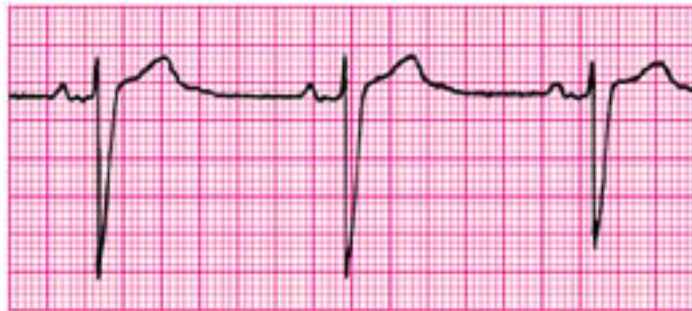
- | | |
|---|---|
| <input type="checkbox"/> Normal Sinus Rhythm | <input type="checkbox"/> Monomorphic Ventricular Tachycardia |
| <input type="checkbox"/> Sinus Tachycardia | <input type="checkbox"/> Polymorphic Ventricular Tachycardia |
| <input type="checkbox"/> Sinus Bradycardia | <input type="checkbox"/> Ventricular Fibrillation |
| <input type="checkbox"/> Atrial Fibrillation | <input type="checkbox"/> Second-Degree Atrioventricular Block |
| <input type="checkbox"/> Atrial Flutter | <input type="checkbox"/> Third-Degree Atrioventricular Block |
| <input type="checkbox"/> Reentry Supraventricular Tachycardia | |

32.



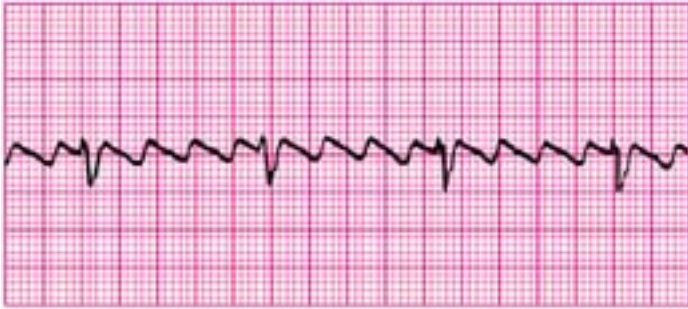
- Normal Sinus Rhythm
- Sinus Tachycardia
- Sinus Bradycardia
- Atrial Fibrillation
- Atrial Flutter
- Reentry Supraventricular Tachycardia
- Monomorphic Ventricular Tachycardia
- Polymorphic Ventricular Tachycardia
- Ventricular Fibrillation
- Second-Degree Atrioventricular Block
- Third-Degree Atrioventricular Block

33.



- Normal Sinus Rhythm
- Sinus Tachycardia
- Sinus Bradycardia
- Atrial Fibrillation
- Atrial Flutter
- Reentry Supraventricular Tachycardia
- Monomorphic Ventricular Tachycardia
- Polymorphic Ventricular Tachycardia
- Ventricular Fibrillation
- Second-Degree Atrioventricular Block
- Third-Degree Atrioventricular Block

34.



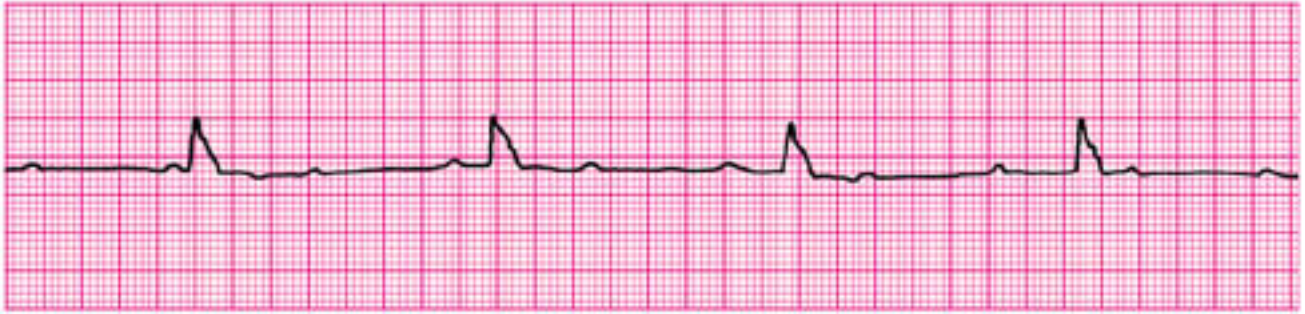
- | | |
|---|---|
| <input type="checkbox"/> Normal Sinus Rhythm | <input type="checkbox"/> Monomorphic Ventricular Tachycardia |
| <input type="checkbox"/> Sinus Tachycardia | <input type="checkbox"/> Polymorphic Ventricular Tachycardia |
| <input type="checkbox"/> Sinus Bradycardia | <input type="checkbox"/> Ventricular Fibrillation |
| <input type="checkbox"/> Atrial Fibrillation | <input type="checkbox"/> Second-Degree Atrioventricular Block |
| <input type="checkbox"/> Atrial Flutter | <input type="checkbox"/> Third-Degree Atrioventricular Block |
| <input type="checkbox"/> Reentry Supraventricular Tachycardia | |

35.



- | | |
|---|---|
| <input type="checkbox"/> Normal Sinus Rhythm | <input type="checkbox"/> Monomorphic Ventricular Tachycardia |
| <input type="checkbox"/> Sinus Tachycardia | <input type="checkbox"/> Polymorphic Ventricular Tachycardia |
| <input type="checkbox"/> Sinus Bradycardia | <input type="checkbox"/> Ventricular Fibrillation |
| <input type="checkbox"/> Atrial Fibrillation | <input type="checkbox"/> Second-Degree Atrioventricular Block |
| <input type="checkbox"/> Atrial Flutter | <input type="checkbox"/> Third-Degree Atrioventricular Block |
| <input type="checkbox"/> Reentry Supraventricular Tachycardia | |

36.



- Normal Sinus Rhythm
- Sinus Tachycardia
- Sinus Bradycardia
- Atrial Fibrillation
- Atrial Flutter
- Reentry Supraventricular Tachycardia
- Monomorphic Ventricular Tachycardia
- Polymorphic Ventricular Tachycardia
- Ventricular Fibrillation
- Second-Degree Atrioventricular Block
- Third-Degree Atrioventricular Block

37.



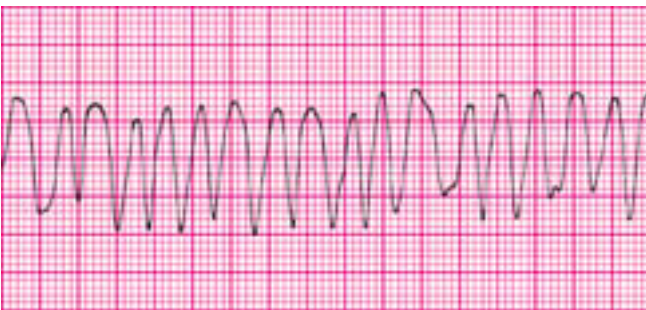
- Normal Sinus Rhythm
- Sinus Tachycardia
- Sinus Bradycardia
- Atrial Fibrillation
- Atrial Flutter
- Reentry Supraventricular Tachycardia
- Monomorphic Ventricular Tachycardia
- Polymorphic Ventricular Tachycardia
- Ventricular Fibrillation
- Second-Degree Atrioventricular Block
- Third-Degree Atrioventricular Block

38.



- Normal Sinus Rhythm
- Sinus Tachycardia
- Sinus Bradycardia
- Atrial Fibrillation
- Atrial Flutter
- Reentry Supraventricular Tachycardia
- Monomorphic Ventricular Tachycardia
- Polymorphic Ventricular Tachycardia
- Ventricular Fibrillation
- Second-Degree Atrioventricular Block
- Third-Degree Atrioventricular Block

39.



- Normal Sinus Rhythm
- Sinus Tachycardia
- Sinus Bradycardia
- Atrial Fibrillation
- Atrial Flutter
- Reentry Supraventricular Tachycardia
- Monomorphic Ventricular Tachycardia
- Polymorphic Ventricular Tachycardia
- Ventricular Fibrillation
- Second-Degree Atrioventricular Block
- Third-Degree Atrioventricular Block

40.



- Normal Sinus Rhythm
- Sinus Tachycardia
- Sinus Bradycardia
- Atrial Fibrillation
- Atrial Flutter
- Reentry Supraventricular Tachycardia
- Monomorphic Ventricular Tachycardia
- Polymorphic Ventricular Tachycardia
- Ventricular Fibrillation
- Second-Degree Atrioventricular Block
- Third-Degree Atrioventricular Block

ACLS Written 2006 Precourse Self-Assessment Answer Key

1. **The correct answer is d.**
See ACLS Provider Manual, pages 38 and 43.
2. **The correct answer is b.**
See ACLS Provider Manual, page 53
3. **The correct answer is c.**
See ACLS Provider Manual, page 45
4. **The correct answer is c.**
See ACLS Provider Manual, page 37.
5. **The correct answer is a.**
See ACLS Provider Manual, page 101.
6. **The correct answer is c.**
See ACLS Provider Manual, page 41
7. **The correct answer is a.**
See ACLS Student CD, pages 22-23
8. **The correct answer is b.**
See ACLS Provider Manual, page 47
9. **The correct answer is a.**
See ACLS Provider Manual, page 46.
10. **The correct answer is c.**
See ACLS Provider Manual, page 45.
11. **The correct answer is b.**
See ACLS Provider Manual, page 58-59
12. **The correct answer is c.**
See ACLS Provider Manual, page 62
13. **The correct answer is a.**
See ACLS Provider Manual, page 83
14. **The correct answer is a.**
See ACLS Provider Manual, page 32
15. **The correct answer is d.**
See ACLS Provider Manual page 72.
See ACLS Student CD, ACLS Core Drugs
16. **The correct answer is b.**
See ACLS Provider Manual, page 74

17. **The correct answer is c.**
See ACLS Provider Manual page 72.
18. **The correct answer is d.**
See ACLS Provider Manual, page 76 and 78
19. **The correct answer is b.**
See ACLS Provider Manual, page 107
20. **The correct answer is a.**
See ACLS Provider Manual, pages 106 and 112-113.
21. **The correct answer is c.**
See ACLS Provider Manual, page 85
22. **The correct answer is c.**
See ACLS Provider Manual, page 64
23. **The correct answer is a.**
See ACLS Provider Manual, page 98
24. **The correct answer is d.**
See ACLS Provider Manual, pages 99
25. **The correct answer is c.**
See ACLS Provider Manual, pages 93-95 and 99
26. **The correct answer is d.**
See ACLS Provider Manual, pages 45, 48, 53 and 62
27. **The correct answer is a.**
See ACLS Provider Manual, page 53
28. **The correct answer is c.**
See ACLS Provider Manual, page 115.
29. **The correct answer is d.**
See ACLS Provider Manual, page 101
30. **The correct answer is d.**
See ACLS Provider Manual, pages 83 and 86
31. **Normal Sinus Rhythm**
See ACLS Student CD Nonarrest Rhythms
32. **Second Degree Atrioventricular Block**
See ACLS Student CD Nonarrest Rhythms
33. **Sinus Bradycardia**
See ACLS Student CD Nonarrest Rhythms
34. **Atrial Flutter**
See ACLS Student CD Nonarrest Rhythms
35. **Sinus Bradycardia**
See ACLS Student CD Nonarrest Rhythms

- 36. Third Degree Atrioventricular Block**
See ACLS Student CD Nonarrest Rhythms
- 37. Atrial Fibrillation**
See ACLS Student CD Nonarrest Rhythms
- 38. Monomorphic Ventricular Tachycardia**
See ACLS Student CD Nonarrest Rhythms
- 39. Polymorphic Ventricular Tachycardia**
See ACLS Student CD Nonarrest Rhythms
- 40. Ventricular Fibrillation**
See ACLS Student CD Core Arrest Rhythms