

***Electrocardiography for Healthcare Professionals, 5e (Booth)***

**Chapter 7 Junctional Dysrhythmias**

1) What is the normal, inherent rate of the AV node?

- A) 20 to 40 bpm
- B) 40 to 60 bpm
- C) 80 to 100 bpm
- D) 100 to 150 bpm

Answer: B

Explanation: The inherent rate of the AV node is between 40 and 60 bpm.

Difficulty: 2 Medium

Topic: Introduction to Junctional Dysrhythmias

Learning Objective: 07.01 Describe the various junctional dysrhythmias.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system;

2.a List all body systems and their structures and function

2) Junctional rhythms occur because the electrical impulse comes from the AV junction instead of the \_\_\_\_\_.

- A) Purkinje fibers
- B) Ventricles
- C) Bundle of His
- D) SA node

Answer: D

Explanation: Junctional rhythms are a result of electrical impulses coming from the AV junction rather than from the SA node.

Difficulty: 2 Medium

Topic: Introduction to Junctional Dysrhythmias

Learning Objective: 07.01 Describe the various junctional dysrhythmias.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system

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3) In junctional rhythms, where does the electrical current initiate?

- A) AV junction
- B) Bundle of His
- C) Atria
- D) Ventricles

Answer: A

Explanation: In junctional rhythms, the electrical current initiates from the AV junction, so the impulses that cause the atria to depolarize flow retrograde.

Difficulty: 1 Easy

Topic: Introduction to Junctional Dysrhythmias

Learning Objective: 07.01 Describe the various junctional dysrhythmias.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system

4) What causes the inverted P wave morphology found with junctional rhythms?

- A) Electrical impulses are coming from the SA node, causing repolarization.
- B) Electrical impulses are coming from areas of multiple ectopic foci.
- C) Electrical impulses are coming from the AV node, causing atrial depolarization to flow retrogradely.
- D) Rapid impulses originate in the atrial tissue

Answer: C

Explanation: As a result of the electrical activity coming from the AV node or junction, the electrical impulses that depolarize the atria flow in a retrograde manner. This causes the unique inverted P wave.

Difficulty: 2 Medium

Topic: Introduction to Junctional Dysrhythmias

Learning Objective: 07.01 Describe the various junctional dysrhythmias.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system



5) What does the term "retrograde" mean?

- A) Immediately
- B) Backward
- C) Horizontal
- D) Flattened

Answer: B

Explanation: Retrograde means moving backward.

Difficulty: 1 Easy

Topic: Introduction to Junctional Dysrhythmias

Learning Objective: 07.01 Describe the various junctional dysrhythmias.

Bloom's: Remember

Accessibility: Keyboard Navigation

ABHES: 3.c Apply medical terminology for each specialty

6) What are the distinguishing characteristics of PJCs?

- A) They have a changing P wave configuration with at least three variations in one lead.
- B) They have an inverted or absent P wave or a P wave that follows the QRS complex.
- C) They have an irregular rhythm; the P wave is inverted and may appear before, during, or after the QRS complex.

D) They have a clearly changing P wave and a heart rate of 101 to 150 bpm.

Answer: C

Explanation: PJs cause the rhythm to be irregular, and the P wave may appear before, during, or after the QRS complex. If the P wave is seen, it will be inverted.

Difficulty: 2 Medium

Topic: Premature Junctional Complex (PJC)

Learning Objective: 07.02 Analyze premature junctional complexes and their effect on the patient, including basic patient care and treatment.

Bloom's: Remember

Accessibility: Keyboard Navigation

ABHES: 2.c Identify diagnostic and treatment modalities as they relate to each body system; 3.d Define and use medical abbreviations when appropriate and acceptable



7) What symptoms will a patient have if PJs occur more than four to six times per minute?

- A) Hypertension, rapid pulse
- B) Chest pain, lung congestion
- C) Pale skin, rapid breathing
- D) Hypotension, irregular pulse

Answer: D

Explanation: If PJs occur at a rate of more than four to six times per minute, this warns of a more serious condition. An irregular pulse would be noted, and the patient may experience hypotension because of the low cardiac output.

Difficulty: 2 Medium

Topic: Premature Junctional Complex (PJC)

Learning Objective: 07.02 Analyze premature junctional complexes and their effect on the patient, including basic patient care and treatment.

Bloom's: Remember

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system

8) Which of the following is a single early electrical impulse that originates in the AV junction, occurring before the next expected sinus impulse and causing an irregularity in the rhythm?

- A) Junctional tachycardia
- B) SVT
- C) PJC
- D) Junctional escape rhythm

Answer: C

Explanation: A PJC is a single early electrical impulse that originates in the AV junction. It occurs before the next expected sinus impulse, causing an irregular underlying rhythm.

Difficulty: 2 Medium

Topic: Premature Junctional Complex (PJC)

Learning Objective: 07.02 Analyze premature junctional complexes and their effect on the patient, including basic patient care and treatment.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system



9) What type of rhythm occurs when the SA node fails to initiate the electrical activity and one of the backup pacemaker sites takes over?

- A) Junctional escape rhythm
- B) Heart block rhythm
- C) Asystole
- D) Normal sinus rhythm

Answer: A

Explanation: Junctional escape rhythms occur when the SA node fails to initiate the electrical activity. When this happens, one of the backup pacemaker sites takes over.

Difficulty: 2 Medium

Topic: Junctional Escape Rhythm

Learning Objective: 07.03 Analyze junctional escape rhythm and its effect on the patient, including basic patient care and treatment.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system;  
3.c Apply medical terminology for each specialty

10) What is the ventricular heart rate for junctional escape rhythm?

- A) 20 to 40 bpm
- B) 40 to 60 bpm
- C) 60 to 100 bpm
- D) 100 to 150 bpm

Answer: B

Explanation: The ventricular rate for junctional escape rhythm is 40 to 60 bpm. The atrial rate is also 40 to 60 bpm, but it may not be measurable if the P waves are not identifiable.

Difficulty: 2 Medium

Topic: Junctional Escape Rhythm

Learning Objective: 07.03 Analyze junctional escape rhythm and its effect on the patient, including basic patient care and treatment.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system



11) What are the distinguishing characteristics of junctional escape rhythm?

- A) The rhythm is regular; the P wave may occur before, during, or after the QRS; and the P wave is inverted.
- B) The rhythm is irregular, the P wave is inverted, and the P wave may immediately precede or follow the QRS complex.
- C) The P wave may occur simultaneously with the T wave or may occur before, during, or after the QRS complex.
- D) The P waves cannot be identified, there is chaotic electrical activity, and f waves may be seen.

Answer: A

Explanation: A junctional escape rhythm is regular, but the P wave may occur before, during, or after the QRS. If the P wave is seen, it will be inverted.

Difficulty: 2 Medium

Topic: Junctional Escape Rhythm

Learning Objective: 07.03 Analyze junctional escape rhythm and its effect on the patient, including basic patient care and treatment.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system

12) What symptoms might occur in a patient with junctional escape rhythm?

- A) Hypertension, lung congestion, and syncope
- B) Hypotension, confusion, and disorientation
- C) Chest pain, lung congestion, and palpitations
- D) Hypotension, nausea, and syncope

Answer: B

Explanation: A patient with junctional escape rhythm has a slower than normal heart rate. This often causes the patient to exhibit signs of low cardiac output, such as hypotension, and altered mental status, such as confusion or disorientation.

Difficulty: 2 Medium

Topic: Junctional Escape Rhythm

Learning Objective: 07.03 Analyze junctional escape rhythm and its effect on the patient, including basic patient care and treatment.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system

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13) What is the ventricular heart rate range for accelerated junctional rhythm?

- A) 20 to 40 bpm
- B) 40 to 60 bpm
- C) 60 to 100 bpm
- D) 100 to 150 bpm

Answer: C

Explanation: The ventricular rate for accelerated junctional rhythm is 60 to 100 bpm. The atrial rate is also 60 to 100 bpm, but it may not be measurable if the P waves are not identifiable.

Difficulty: 1 Easy

Topic: Accelerated Junctional Rhythm

Learning Objective: 07.04 Analyze accelerated junctional rhythm and its effect on the patient, including basic patient care and treatment.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system

14) What is the difference between accelerated junctional rhythm and junctional escape rhythm?

- A) QRS duration
- B) P wave
- C) Heart rate
- D) T wave

Answer: C

Explanation: Accelerated junctional rhythm has the same morphology as junctional escape rhythm; the distinguishing difference is the heart rate.

Difficulty: 1 Easy

Topic: Accelerated Junctional Rhythm

Learning Objective: 07.04 Analyze accelerated junctional rhythm and its effect on the patient, including basic patient care and treatment.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system



15) Why is it unlikely that a patient would have symptoms of low cardiac output with accelerated junctional rhythm?

- A) The heart rate is the same as normal sinus rhythm.
- B) The heart rate is influenced by the respiratory cycle and variations of vagal tone.
- C) The rhythm originates at the AV junctional tissue, producing retrograde depolarization of atrial tissue.
- D) The heart rate is slower than normal and loses the atrial kick.

Answer: A

Explanation: It is unlikely that a patient will show signs and symptoms of low cardiac output because the heart rate is the same as normal sinus rhythm.

Difficulty: 2 Medium

Topic: Accelerated Junctional Rhythm

Learning Objective: 07.04 Analyze accelerated junctional rhythm and its effect on the patient, including basic patient care and treatment.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system

16) What is the ventricular heart rate with junctional tachycardia?

- A) 60 to 100 bpm
- B) 100 to 180 bpm
- C) 150 to 300 bpm
- D) Greater than 300 bpm

Answer: B

Explanation: The ventricular rate for junctional tachycardia is 100 to 180 bpm. The atrial rate is also 100 to 180 bpm, but it may not be measurable if the P waves are not identifiable.

Difficulty: 1 Easy

Topic: Junctional Tachycardia

Learning Objective: 07.05 Analyze junctional tachycardia and its effect on the patient, including basic patient care and treatment.

Bloom's: Remember

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system



17) What is the difference between accelerated junctional rhythm and junctional tachycardia?

- A) P wave
- B) QRS duration
- C) PR interval
- D) Heart rate

Answer: D

Explanation: Junctional tachycardia has the same morphology as junctional escape rhythm and accelerated junctional rhythm; the only difference is that the heart rate is faster.

Difficulty: 1 Easy

Topic: Junctional Tachycardia

Learning Objective: 07.05 Analyze junctional tachycardia and its effect on the patient, including basic patient care and treatment.

Bloom's: Remember

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system

18) The effect of junctional tachycardia on the patient depends on \_\_\_\_\_.

- A) The force of the ventricular contractions
- B) The rate of the rhythm
- C) The timing of the atrial contractions
- D) The atrial kick

Answer: B

Explanation: The effect of junctional tachycardia on a patient depends on the rate of the tachycardia.

Difficulty: 1 Easy

Topic: Junctional Tachycardia

Learning Objective: 07.05 Analyze junctional tachycardia and its effect on the patient, including basic patient care and treatment.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system



19) What is the term for a fast, "fluttering" heartbeat sensation felt by a patient?

- A) Palpation
- B) Paresthesia
- C) Palpitation
- D) Pacemaker

Answer: C

Explanation: Palpitations are a fast heartbeat sensation felt by a patient, often described as heart

fluttering. Palpitations may or may not be associated with chest pain.

Difficulty: 1 Easy

Topic: Junctional Tachycardia

Learning Objective: 07.05 Analyze junctional tachycardia and its effect on the patient, including basic patient care and treatment.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system

20) When is junctional tachycardia considered to be serious or life threatening?

- A) After a recent myocardial infarction
- B) After an exercise electrocardiography test
- C) After a routine physical examination
- D) After a recent viral infection

Answer: A

Explanation: If the patient has had a recent myocardial infarction, junctional tachycardia is considered to be serious and life threatening.

Difficulty: 2 Medium

Topic: Junctional Tachycardia

Learning Objective: 07.05 Analyze junctional tachycardia and its effect on the patient, including basic patient care and treatment.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system



21) Which of the following is one criterion for classifying a dysrhythmia as an SVT?

- A) A wide QRS complex
- B) Heart rate between 150 and 250 bpm
- C) Identical atrial and ventricular rates
- D) A clear, easily identifiable P wave

Answer: B

Explanation: An SVT is a classification of rapid heartbeats occurring at a rate greater than 150 bpm.

Difficulty: 2 Medium

Topic: Supraventricular Tachycardia (SVT)

Learning Objective: 07.06 Analyze supraventricular tachycardia and its effect on the patient, including basic patient care and treatment.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system;

I.C.9.a Analyze pathology for each body system including: diagnostic measures

22) Which of the following dysrhythmias is not considered part of the SVT classification?

- A) Atrial fibrillation
- B) Sinus tachycardia
- C) Junctional tachycardia



D) Ventricular tachycardia

Answer: D

Explanation: SVTs include cardiac rhythms in which the active pacemaker is above the ventricles (supraventricular).

Difficulty: 3 Hard

Topic: Supraventricular Tachycardia (SVT)

Learning Objective: 07.06 Analyze supraventricular tachycardia and its effect on the patient, including basic patient care and treatment.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system;

I.C.9.a Analyze pathology for each body system including: diagnostic measures



23) What symptom might a stable patient complain about when experiencing SVT?

- A) Back pain
- B) Chest pain
- C) Palpitations
- D) Edema

Answer: C

Explanation: A stable patient may complain only of palpitations or heart fluttering when experiencing SVT.

Difficulty: 1 Easy

Topic: Supraventricular Tachycardia (SVT)

Learning Objective: 07.06 Analyze supraventricular tachycardia and its effect on the patient, including basic patient care and treatment.

Bloom's: Remember

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system

24) Identify the following rhythm:



- A) Atrial fibrillation
- B) Atrial flutter
- C) Junctional tachycardia
- D) SVT

Answer: D

Explanation: This is an SVT. It presents with a normal, narrow QRS complex and a heart rate of 200 bpm.

Difficulty: 2 Medium

Topic: Supraventricular Tachycardia (SVT)

Learning Objective: 07.06 Analyze supraventricular tachycardia and its effect on the patient, including basic patient care and treatment.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system



25) What is the origination point of an SVT?

- A) Left ventricle
- B) Atria or junctional region
- C) Purkinje fibers
- D) Right ventricle

Answer: B

Explanation: The origin of an SVT may be any location above (supra) the ventricles, which includes the atria and the junctional region. Impulse activity may come from anywhere within the atria, SA node, AV node, or junctional region of the heart.

Difficulty: 2 Medium

Topic: Supraventricular Tachycardia (SVT)

Learning Objective: 07.06 Analyze supraventricular tachycardia and its effect on the patient, including basic patient care and treatment.

Bloom's: Remember

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system

26) What might you be asked to do when a patient has a supraventricular dysrhythmia?

- A) Increase the paper speed so the tracing can be analyzed more carefully
- B) Call a code blue and immediately start CPR and advanced life support
- C) Perform an exercise stress test on the patient
- D) Perform electrical cardioversion on the patient

Answer: A

Explanation: Frequently, a licensed practitioner will ask that the paper speed be increased to pull the cardiac complexes apart in an attempt to expose the P wave and determine the origin of electrical activity. Be sure to mark the tracing if you do this.

Difficulty: 2 Medium

Topic: Supraventricular Tachycardia (SVT)

Learning Objective: 07.06 Analyze supraventricular tachycardia and its effect on the patient, including basic patient care and treatment.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 8.e Perform specialty procedures including but not limited to minor surgery, cardiac, respiratory, OB-GYN, neurological, and gastroenterology



27) In terms of treating the patient, when a patient has a supraventricular tachycardia, when should the specific type of dysrhythmia be identified?

- A) When the patient first complains of any signs or symptoms
- B) When the patient's heart rate has decreased to 100 bpm
- C) After the patient takes medication
- D) After the rhythm has converted to normal sinus rhythm

Answer: A

Explanation: Because tachycardia significantly increases myocardial oxygen demand, treatment should begin as early as possible. It is difficult to predict how long a patient's heart can beat at a rapid rate before it begins to affect the other body systems.

Difficulty: 2 Medium

Topic: Supraventricular Tachycardia (SVT)

Learning Objective: 07.06 Analyze supraventricular tachycardia and its effect on the patient, including basic patient care and treatment.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system;  
2.c Identify diagnostic and treatment modalities as they relate to each body system

28) What is the term for an ectopic focus originating above the ventricles in the atria or junctional region?

- A) An escape rhythm
- B) Supraventricular
- C) Ventricular
- D) A heart block rhythm

Answer: B

Explanation: The term "supraventricular" refers to an ectopic focus originating above the ventricles, that is, in the atria or in the junctional region of the heart.

Difficulty: 2 Medium

Topic: Supraventricular Tachycardia (SVT)

Learning Objective: 07.06 Analyze supraventricular tachycardia and its effect on the patient, including basic patient care and treatment.

Bloom's: Remember

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system;  
3.c Apply medical terminology for each specialty

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29) What is the term for a condition in which a patient's blood pressure is not adequate to maintain good blood supply to the vital organs?

- A) Hypoxia
- B) Hyperventilation
- C) Hypotension
- D) Hypertension

Answer: C

Explanation: Hypotension, or low blood pressure, is a condition in which the patient's blood

pressure is not adequate to maintain good blood supply to the vital organs.

Difficulty: 1 Easy

Topic: Premature Junctional Complex (PJC)

Learning Objective: 07.02 Analyze premature junctional complexes and their effect on the patient, including basic patient care and treatment.

Bloom's: Remember

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system;

3.c Apply medical terminology for each specialty

30) The PR interval can be measured only if the P wave occurs \_\_\_\_\_ the QRS complex.

- A) Before
- B) After
- C) During
- D) Buried in

Answer: A

Explanation: The PR interval can be measured only if the P wave, regardless of shape, occurs before the QRS complex.

Difficulty: 2 Medium

Topic: Premature Junctional Complex (PJC)

Learning Objective: 07.02 Analyze premature junctional complexes and their effect on the patient, including basic patient care and treatment.

Bloom's: Remember

Accessibility: Keyboard Navigation

ABHES: 2.c Identify diagnostic and treatment modalities as they relate to each body system

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31) Which dysrhythmia does not have a consistent PR interval that measures less than 0.12 seconds?

- A) Junctional escape rhythm
- B) Accelerated junctional rhythm
- C) Supraventricular tachycardia
- D) Junctional tachycardia

Answer: C

Explanation: In SVT, the PR interval cannot be determined because the beginning of the P wave cannot be clearly identified.

Difficulty: 2 Medium

Topic: Supraventricular Tachycardia (SVT)

Learning Objective: 07.06 Analyze supraventricular tachycardia and its effect on the patient, including basic patient care and treatment.

Bloom's: Remember

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system

32) Which of the following originates from the AV junction?

- A) Atrial flutter
- B) Premature atrial complex

- C) Junctional escape rhythm
- D) Sinus bradycardia

Answer: C

Explanation: Junctional escape rhythm originates at the AV junctional tissue, producing retrograde depolarization of atrial tissue and stimulating the depolarization of the ventricles.

Difficulty: 2 Medium

Topic: Junctional Escape Rhythm

Learning Objective: 07.03 Analyze junctional escape rhythm and its effect on the patient, including basic patient care and treatment.

Bloom's: Remember

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system



33) According to your patient's chart, she has junctional tachycardia and her normal resting heart rate is 86 bpm. Your ECG tracing shows a current resting heart rate of 148 bpm. What should you look for in this patient?

- A) Signs and symptoms of low cardiac output
- B) Signs and symptoms of pulmonary edema
- C) Signs and symptoms of myocardial infarction
- D) Signs and symptoms of congestive heart failure

Answer: A

Explanation: The patient's heart is beating too fast for the chambers to fill and pump blood efficiently. The patient will probably show signs and symptoms of low cardiac output.

Difficulty: 2 Medium

Topic: Junctional Tachycardia

Learning Objective: 07.05 Analyze junctional tachycardia and its effect on the patient, including basic patient care and treatment.

Bloom's: Apply

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system; 2.c Identify diagnostic and treatment modalities as they relate to each body system

34) Which of the following treatments may be needed to terminate junctional tachycardia?

- A) Medication
- B) Moderate exercise program
- C) Cardioversion
- D) Modified diet

Answer: A

Explanation: Junctional tachycardia should be reported to a licensed practitioner for medical treatment; medication may be needed to terminate the tachycardia.

Difficulty: 2 Medium

Topic: Junctional Tachycardia

Learning Objective: 07.05 Analyze junctional tachycardia and its effect on the patient, including basic patient care and treatment.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.c Identify diagnostic and treatment modalities as they relate to each body system



35) Wolff-Parkinson-White syndrome is an example of which type of dysrhythmia?

- A) Reentry dysrhythmia
- B) Ventricular dysrhythmia
- C) Reciprocating dysrhythmia
- D) Sinus dysrhythmia

Answer: A

Explanation: Wolff-Parkinson-White syndrome occurs as a result of an abnormal electrical conduction pathway between one of the atria and a ventricle, which allows some of the electrical impulses to bypass the AV node.

Difficulty: 2 Medium

Topic: Supraventricular Tachycardia (SVT)

Learning Objective: 07.06 Analyze supraventricular tachycardia and its effect on the patient, including basic patient care and treatment.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system

36) What is the primary difficulty in classifying an SVT?

- A) Determining the origin of the tachycardia
- B) Determining the patient's ventricular heart rate
- C) Measuring the QRS complex
- D) Identifying the delta waves

Answer: A

Explanation: The primary difficulty in classifying an SVT is determining the origin of the tachycardia because the initial upswing of the P wave often cannot be seen. A faster recording speed may be ordered in an attempt to expose the P wave.

Difficulty: 2 Medium

Topic: Supraventricular Tachycardia (SVT)

Learning Objective: 07.06 Analyze supraventricular tachycardia and its effect on the patient, including basic patient care and treatment.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.c Identify diagnostic and treatment modalities as they relate to each body system;

I.C.9.a Analyze pathology for each body system including: diagnostic measures



37) Which of the following statements is true of all junctional dysrhythmias?

- A) The heart rate is regular.
- B) The QRS measurement is within normal limits.
- C) The PR interval is constant.
- D) A P wave occurs before every QRS complex.

Answer: B

Explanation: In all junctional dysrhythmias, the QRS measurement is within the normal limits of between 0.06 and 0.10 seconds.

Difficulty: 3 Hard

Topic: Introduction to Junctional Dysrhythmias

Learning Objective: 07.01 Describe the various junctional dysrhythmias.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system

38) What type of heart rate is characteristic of a patient who has junctional escape rhythm?

- A) Faster than normal
- B) Irregular
- C) Slower than normal
- D) Normal

Answer: C

Explanation: A patient with junctional escape rhythm has a slower than normal heart rate, which often causes symptoms of low cardiac output.

Difficulty: 1 Easy

Topic: Junctional Escape Rhythm

Learning Objective: 07.03 Analyze junctional escape rhythm and its effect on the patient, including basic patient care and treatment.

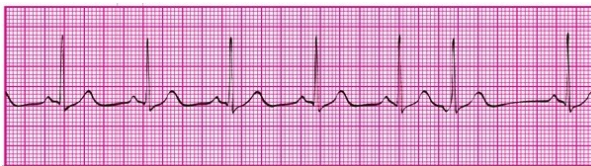
Bloom's: Remember

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system

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39) You have recorded an ECG on a patient, and a portion of the tracing is shown here. What type of dysrhythmia does this patient have?



- A) Junctional tachycardia
- B) Junctional escape rhythm
- C) Accelerated junctional rhythm
- D) PJC

Answer: D

Explanation: The sixth beat in this tracing is a PJC, which causes an irregular heart rate.

Difficulty: 2 Medium

Topic: Premature Junctional Complex (PJC)

Learning Objective: 07.02 Analyze premature junctional complexes and their effect on the patient, including basic patient care and treatment.

Bloom's: Apply

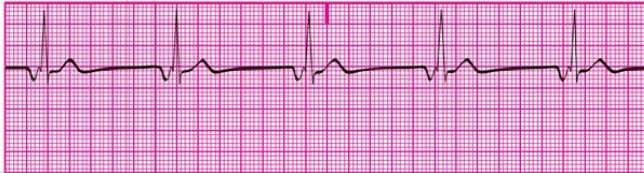
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ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system;

I.C.9.a Analyze pathology for each body system including: diagnostic measures



40) You have performed an ECG on a hospital patient who is known to be suffering from hypotension. A portion of the tracing is shown here. What might be the cause of this patient's hypotension?



- A) Sinus bradycardia
- B) PJs
- C) Junctional escape rhythm
- D) Accelerated junctional escape rhythm

Answer: C

Explanation: The tracing shows a regular heart rate of 48 bpm, with an inverted P wave, a constant PR interval, and normal QRS complexes. These characteristics are consistent with junctional escape rhythm.

Difficulty: 3 Hard

Topic: Junctional Escape Rhythm

Learning Objective: 07.03 Analyze junctional escape rhythm and its effect on the patient, including basic patient care and treatment.

Bloom's: Apply

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system;

I.C.9.a Analyze pathology for each body system including: diagnostic measures



41) You are recording an ECG for a patient at a wellness clinic. The patient appears to be in good health and has no obvious signs or symptoms of heart trouble. A portion of the ECG tracing is shown below. What are your conclusions?



- A) Normal sinus rhythm
- B) Sinus tachycardia
- C) Junctional tachycardia



#### D) Accelerated junctional rhythm

Answer: D

Explanation: Although the rhythm is regular and the heart rate is 75 bpm, which is within the parameters for normal sinus rhythm, no P waves are evident on this tracing, so the impulses do not originate from the atria. The rhythm is accelerated junctional rhythm.

Difficulty: 3 Hard

Topic: Accelerated Junctional Rhythm

Learning Objective: 07.04 Analyze accelerated junctional rhythm and its effect on the patient, including basic patient care and treatment.

Bloom's: Apply

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system;

I.C.9.a Analyze pathology for each body system including: diagnostic measures



42) You have performed an ECG on a patient who has come to the clinic complaining of "fluttering" in his chest. A portion of the ECG tracing is shown here. What type of dysrhythmia does this patient have?



- A) Sinus tachycardia
- B) Accelerated junctional rhythm
- C) Junctional tachycardia
- D) Ventricular tachycardia

Answer: C

Explanation: This tracing shows an inverted P wave and a relatively regular heart rate of 150 bpm. These criteria indicate that the patient has junctional tachycardia.

Difficulty: 3 Hard

Topic: Junctional Tachycardia

Learning Objective: 07.05 Analyze junctional tachycardia and its effect on the patient, including basic patient care and treatment.

Bloom's: Apply

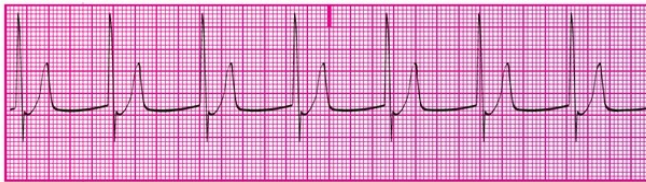
Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system;

I.C.9.a Analyze pathology for each body system including: diagnostic measures



43) You have performed an ECG on a hospital patient. A portion of the ECG tracing is shown here. What signs and symptoms would you expect this patient to have?



- A) Hypotension and confusion
- B) Pressure and pain in the chest
- C) Difficulty breathing
- D) No obvious symptoms

Answer: D

Explanation: This tracing shows a regular heart rate of 70 bpm, although no P waves are evident. The patient has an accelerated junctional rhythm, which does not generally cause any cardiac signs or symptoms.

Difficulty: 3 Hard

Topic: Accelerated Junctional Rhythm

Learning Objective: 07.04 Analyze accelerated junctional rhythm and its effect on the patient, including basic patient care and treatment.

Bloom's: Apply

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system

44) A patient has an accelerated junctional rhythm. When you record the ECG, the tracing shows that the P waves follow the QRS complexes and that the distance from each P wave to the next R wave is 0.6 seconds. What is the PR interval?

- A) 0.6 seconds
- B) 0.12 seconds
- C) 1.2 seconds
- D) The interval cannot be determined.

Answer: D

Explanation: When the P waves follow the QRS complexes, the PR interval cannot be determined because the P waves are not associated with the QRS complexes that follow them.

Difficulty: 3 Hard

Topic: Accelerated Junctional Rhythm

Learning Objective: 07.04 Analyze accelerated junctional rhythm and its effect on the patient, including basic patient care and treatment.

Bloom's: Apply

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system

45) What is the collective term for the AV node and the surrounding tissue, including the bundle of His?

- A) Bachmann's bundle
- B) Purkinje network
- C) AV junction
- D) SA complex

Answer: C

Explanation: The AV node and the surrounding tissue are called the AV junction. This area, which includes the bundle of His, has automaticity and can function as a backup pacemaker for the heart.

Difficulty: 1 Easy

Topic: Introduction to Junctional Dysrhythmias

Learning Objective: 07.01 Describe the various junctional dysrhythmias.

Bloom's: Remember

Accessibility: Keyboard Navigation

ABHES: 3.c Apply medical terminology for each specialty

46) If the electrical impulse is initiated at the midpoint of the AV junction, where would you expect the P waves to appear on the ECG tracing?

- A) Before the QRS complex
- B) After the QRS complex
- C) Within the QRS complex
- D) P waves are absent entirely

Answer: C

Explanation: If the impulse comes from the midpoint of the AV junction, atrial and ventricular depolarization occur at the same time. P waves are generated, but because the QRS complex has a larger voltage, the P wave is buried within it and does not appear on the tracing.

Difficulty: 2 Medium

Topic: Introduction to Junctional Dysrhythmias

Learning Objective: 07.01 Describe the various junctional dysrhythmias.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.c Identify diagnostic and treatment modalities as they relate to each body system

□

47) Reentry dysrhythmias occur as a result of which of the following situations?

- A) An abnormal electrical conduction pathway between an atrium and a ventricle
- B) A blockage or short circuit in the normal electrical conduction pathway
- C) Ectopic foci originating in the ventricles
- D) Ventricular preexcitation

Answer: B

Explanation: Reentry dysrhythmias occur when a blockage or short-circuit in the normal electrical conduction pathway forces the impulse to follow a different pathway.

Difficulty: 3 Hard

Topic: Supraventricular Tachycardia (SVT)

Learning Objective: 07.06 Analyze supraventricular tachycardia and its effect on the patient, including basic patient care and treatment.

Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system

48) How does the preexcitation of the ventricles in reentry dysrhythmias appear on an ECG tracing?

- A) Inverted P wave
- B) Delta wave
- C) U wave
- D) Inverted T wave

Answer: B

Explanation: Preexcitation of the ventricles often shows up on an ECG tracing as an abnormally wide QRS complex; the slur at the beginning of the complex is commonly referred to as a delta wave.

Difficulty: 2 Medium

Topic: Supraventricular Tachycardia (SVT)

Learning Objective: 07.06 Analyze supraventricular tachycardia and its effect on the patient, including basic patient care and treatment.

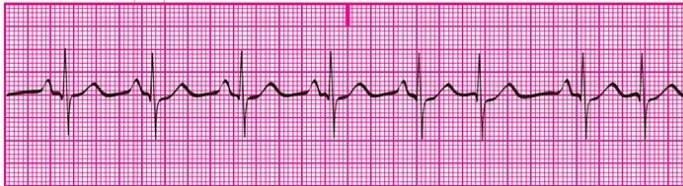
Bloom's: Understand

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system



49) What is the underlying rhythm in the ECG tracing shown here?



- A) Normal sinus rhythm
- B) Accelerated junctional rhythm
- C) Junctional tachycardia
- D) SVT

Answer: A

Explanation: The strip shows a normal sinus rhythm with one early beat that has no visible P wave; that beat is a PJC.

Difficulty: 3 Hard

Topic: Premature Junctional Complex (PJC)

Learning Objective: 07.02 Analyze premature junctional complexes and their effect on the patient, including basic patient care and treatment.

Bloom's: Apply

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system

50) What type of rhythm would be present if abnormal impulses are ignored?

- A) Basal heart rate
- B) Underlying rhythm

- C) Resting heart rhythm
- D) Reentry dysrhythmia

Answer: B

Explanation: The underlying rhythm is the rhythm that would be present if all abnormal impulses were ignored.

Difficulty: 1 Easy

Topic: Premature Junctional Complex (PJC)

Learning Objective: 07.02 Analyze premature junctional complexes and their effect on the patient, including basic patient care and treatment.

Bloom's: Remember

Accessibility: Keyboard Navigation

ABHES: 3.c Apply medical terminology for each specialty



51) Which of the following is the best definition of reentry dysrhythmias?

- A) Abnormal slowing of conduction through the bundle of His
- B) Blockage or short circuit of the normal electrical conduction pathway
- C) Ischemia around the SA node
- D) Ectopic impulses originating in the Purkinje network

Answer: B

Explanation: Reentry dysrhythmias occur when there is a blockage or short circuit in the normal electrical conduction pathway.

Difficulty: 2 Medium

Topic: Supraventricular Tachycardia (SVT)

Learning Objective: 07.06 Analyze supraventricular tachycardia and its effect on the patient, including basic patient care and treatment.

Bloom's: Remember

Accessibility: Keyboard Navigation

ABHES: 2.b Describe common diseases, symptoms and etiologies as they apply to each system