

Electrocardiography for Healthcare Professionals, 5e (Booth)

Chapter 8 Heart Block Dysrhythmias

1) What causes a heart block dysrhythmia?

- A) The ectopic focus originates above the ventricles.
- B) The electrical current has difficulty traveling down the normal conduction pathway.
- C) The rhythm originates at the AV junctional tissue, producing retrograde depolarization.
- D) An ectopic beat originates in the right or left atrium, resulting in abnormal conduction.

Answer: B

Explanation: In heart block rhythms, the electrical current has difficulty traveling along the normal conduction pathway, which causes a delay in or absence of ventricular depolarization.

Difficulty: 2 Medium

Topic: Introduction to Heart Block Dysrhythmias

Learning Objective: 08.01 Describe the various heart block dysrhythmias.

Bloom's: Understand

Accessibility: Keyboard Navigation

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

2) In first-degree heart block, the electrical current is delayed or blocked along normal conduction pathways _____.

- A) Below the AV junction
- B) In the ventricles
- C) At or above the AV junction
- D) Above the SA node

Answer: C

Explanation: First-degree AV block is a delay in electrical conduction from the SA node to the AV node.

Difficulty: 2 Medium

Topic: First Degree Atrioventricular (AV) Block

Learning Objective: 08.02 Analyze first degree atrioventricular (AV) block and its 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; 2.b Describe common diseases, symptoms and etiologies as they apply to each system



3) Which heart block rhythm has a constant PR interval that measures greater than 0.20 seconds?

- A) First-degree AV block
- B) Second-degree AV block, Mobitz type I
- C) Second-degree AV block, Mobitz type II

D) Third-degree AV block

Answer: A

Explanation: With first-degree AV block, the PR interval is constant and measures greater than 0.20 seconds.

Difficulty: 2 Medium

Topic: First Degree Atrioventricular (AV) Block

Learning Objective: 08.02 Analyze first degree atrioventricular (AV) block 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;

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

4) What is the heart rate range for first-degree heart block?

A) 20 to 40 bpm

B) 40 to 60 bpm

C) 60 to 100 bpm

D) 100 to 150 bpm

Answer: C

Explanation: In first-degree heart block, the rates of the atria and ventricles are within normal limits of 60 to 100 bpm.

Difficulty: 1 Easy

Topic: First Degree Atrioventricular (AV) Block

Learning Objective: 08.02 Analyze first degree atrioventricular (AV) block 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;

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



5) Which heart block dysrhythmia has regular P-P and R-R intervals that both occur at the same rate?

A) First-degree heart block

B) Second-degree heart block, Mobitz type I

C) Second-degree heart block, Mobitz type II

D) Third-degree heart block

Answer: A

Explanation: Because the atria and ventricles have the same rate in first-degree AV block, the P-P interval and the R-R interval are the same.

Difficulty: 2 Medium

Topic: First Degree Atrioventricular (AV) Block

Learning Objective: 08.02 Analyze first degree atrioventricular (AV) block 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;
2.c Identify diagnostic and treatment modalities as they relate to each body system

6) You have performed an ECG on a 34-year-old woman who appears to be in good general health. A portion of the ECG tracing is shown here. Which type of heart block does this patient have?



- A) First-degree AV block
- B) Second-degree AV block, Mobitz type I
- C) Second-degree AV block, Mobitz type II
- D) Third-degree AV block

Answer: A

Explanation: In first-degree AV block, the PR interval is constant and measures greater than 0.20 seconds, the heart rate is 60 to 100 bpm, the P-P and R-R intervals are constant, and the P wave occurs before the QRS complex, which measures 0.06 to 0.10 seconds.

Difficulty: 2 Medium

Topic: First Degree Atrioventricular (AV) Block

Learning Objective: 08.02 Analyze first degree atrioventricular (AV) block 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

7) What is the term for the observation guidelines used to assess the blood supply to the vital organs of the body to maintain normal function?

- A) Cardiac output parameters
- B) Cardiac cycle
- C) Output display
- D) Systemic circulation parameters

Answer: A

Explanation: Cardiac output parameters are observation guidelines used to assess the blood supply to the vital organs of the body to maintain normal function.

Difficulty: 2 Medium

Topic: First Degree Atrioventricular (AV) Block

Learning Objective: 08.02 Analyze first degree atrioventricular (AV) block and its 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; 2.c Identify diagnostic and treatment modalities as they relate to each body system

8) What symptoms would you observe in a patient with first-degree AV block?

- A) The patient would experience extreme fatigue and weakness.
- B) The patient would have normal cardiac output and no symptoms.
- C) The patient would have a rapid pulse and shortness of breath.
- D) The patient would be unconscious.

Answer: B

Explanation: With first-degree AV block, the patient can maintain normal cardiac output. No change in the patient should occur with this rhythm.

Difficulty: 2 Medium

Topic: First Degree Atrioventricular (AV) Block

Learning Objective: 08.02 Analyze first degree atrioventricular (AV) block 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;
2.c Identify diagnostic and treatment modalities as they relate to each body system



9) What type of impulse occurs too soon after the preceding impulse and causes a period when no other impulses can occur in the ventricles?

- A) Loss of capture
- B) Atrial kick
- C) Blocked or nonconducted impulse
- D) Inhibited impulse

Answer: C

Explanation: A blocked or nonconducted impulse is an impulse that occurs too soon after the preceding impulse, causing a period during which no other impulses can occur in the ventricles.

Difficulty: 2 Medium

Topic: Second Degree Atrioventricular (AV) Block, Type I (Mobitz or Wenckebach)

Learning Objective: 08.03 Analyze second degree atrioventricular (AV) block, Mobitz I, 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

10) Who was the first to discover a type of second-degree heart block?

- A) Dr. Karel Frederik Wenckebach
- B) Sir Thomas Lewis
- C) Willem Einthoven
- D) Dr. Woldemar Mobitz

Answer: D

Explanation: Dr. Mobitz was the first person to discover a type of second-degree heart block, currently known as Mobitz type II; later, Dr. Wenckebach identified a second type of second-degree AV block, currently known as Mobitz type I or Wenckebach.

Difficulty: 2 Medium

Topic: Second Degree Atrioventricular (AV) Block, Type I (Mobitz or Wenckebach)

Learning Objective: 08.03 Analyze second degree atrioventricular (AV) block, Mobitz I, 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



11) Which heart blocks are the only blocks with an irregular ventricular response?

- A) First-degree heart blocks
- B) Second-degree heart blocks
- C) Third-degree heart blocks
- D) Bundle branch blocks

Answer: B

Explanation: Second-degree heart blocks are the only blocks with an irregular ventricular response.

Difficulty: 2 Medium

Topic: Second Degree Atrioventricular (AV) Block, Type I (Mobitz or Wenckebach)

Learning Objective: 08.03 Analyze second degree atrioventricular (AV) block, Mobitz I, 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

12) Which of the following heart block dysrhythmias is identified by a progressively longer PR interval pattern after each blocked QRS complex?

- A) First-degree heart block
- B) Second-degree heart block, Mobitz type I
- C) Second-degree heart block, Mobitz type II
- D) Third-degree heart block

Answer: B

Explanation: A second-degree heart block, Mobitz type I, has a cyclical prolonging PR interval until the QRS is dropped. Then the cycle begins again.

Difficulty: 3 Hard

Topic: Second Degree Atrioventricular (AV) Block, Type I (Mobitz or Wenckebach)

Learning Objective: 08.03 Analyze second degree atrioventricular (AV) block, Mobitz I, 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



13) Which of the following is a characteristic of P-P intervals in all heart block dysrhythmias?

- A) Regular
- B) Irregular

- C) Absent
- D) Unidentifiable

Answer: A

Explanation: P-P intervals are regular in all heart block dysrhythmias.

Difficulty: 2 Medium

Topic: Second Degree Atrioventricular (AV) Block, Type I (Mobitz or Wenckebach)

Learning Objective: 08.03 Analyze second degree atrioventricular (AV) block, Mobitz I, 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

14) Frequent nonconducted QRS complexes are likely to cause signs of _____.

- A) High cardiac output
- B) Low cardiac output
- C) Hypertension
- D) Edema

Answer: B

Explanation: As the heart rate decreases and reaches levels of 40 bpm or lower, a patient will develop signs and symptoms of low cardiac output.

Difficulty: 1 Easy

Topic: Second Degree Atrioventricular (AV) Block, Type I (Mobitz or Wenckebach)

Learning Objective: 08.03 Analyze second degree atrioventricular (AV) block, Mobitz I, 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



15) What typically causes second-degree heart block, Mobitz type I?

- A) Loss of atrial kick
- B) Myocardial infarction
- C) Pericarditis
- D) Inflammation around the AV node

Answer: D

Explanation: Second-degree heart block, Mobitz type I, is usually caused by inflammation around the AV node, and the condition is often temporary.

Difficulty: 2 Medium

Topic: Second Degree Atrioventricular (AV) Block, Type I (Mobitz or Wenckebach)

Learning Objective: 08.03 Analyze second degree atrioventricular (AV) block, Mobitz I, 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

16) Which of the following is characteristic of an ECG tracing for a second-degree AV block,

Mobitz type I?

- A) The PR intervals get progressively shorter.
- B) Not all of the P waves are followed by a QRS complex.
- C) The P waves are inverted.
- D) Both the atrial rate and the ventricular rate are regular.

Answer: B

Explanation: In second-degree AV block, Mobitz type I, there will be a P wave for every QRS complex and extra P waves.

Difficulty: 2 Medium

Topic: Second Degree Atrioventricular (AV) Block, Type I (Mobitz or Wenckebach)

Learning Objective: 08.03 Analyze second degree atrioventricular (AV) block, Mobitz I, and its effect on the patient, including basic patient care and treatment.

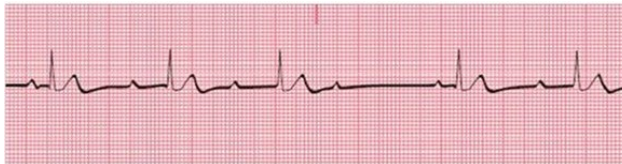
Bloom's: Remember

Accessibility: Keyboard Navigation

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



17) Identify the following rhythm:



- A) First-degree heart block
- B) Second-degree AV block, Mobitz type I
- C) Second-degree AV block, Mobitz type II
- D) Third-degree AV block

Answer: B

Explanation: In second-degree AV block, Mobitz type I, the PR interval becomes progressively longer with each subsequent conducted P wave until the QRS wave is dropped. The next PR interval is short, and then the cycle begins again.

Difficulty: 2 Medium

Topic: Second Degree Atrioventricular (AV) Block, Type I (Mobitz or Wenckebach)

Learning Objective: 08.03 Analyze second degree atrioventricular (AV) block, Mobitz I, 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

18) Which heart block dysrhythmia is known as classical heart block?

- A) First-degree heart block
- B) Second-degree AV block, Mobitz type I
- C) Second-degree AV block, Mobitz type II

D) Third-degree AV block

Answer: C

Explanation: Second-degree AV block, Mobitz type II, is often referred to as classical heart block because it was the first type of AV block to be discovered.

Difficulty: 2 Medium

Topic: Second Degree Atrioventricular (AV) Block, Type II (Mobitz II)

Learning Objective: 08.04 Analyze second degree atrioventricular (AV) block, Mobitz II, and its 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; 2.b Describe common diseases, symptoms and etiologies as they apply to each system



19) Which of the following heart block dysrhythmias is identified by missing QRS complexes and a consistent PR interval measurement?

- A) First-degree heart block
- B) Second-degree AV block, Mobitz type I
- C) Second-degree AV block, Mobitz type II
- D) Third-degree AV block

Answer: C

Explanation: In second-degree AV block, Mobitz type II, the QRS complexes are missing; however, wherever a P wave is accompanied by a QRS complex, the PR interval will always measure the same.

Difficulty: 2 Medium

Topic: Second Degree Atrioventricular (AV) Block, Type II (Mobitz II)

Learning Objective: 08.04 Analyze second degree atrioventricular (AV) block, Mobitz II, 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; 2.c Identify diagnostic and treatment modalities as they relate to each body system

20) Which of the following is characteristic of an ECG tracing for a second-degree AV block, Mobitz type II?

- A) The P waves are all the same.
- B) A QRS complex follows each P wave.
- C) The pacemaker site is in the AV junction.
- D) The ventricular rate is less than 40 bpm.

Answer: A

Explanation: In second-degree AV block, Mobitz type II, all P waves are the same. The P wave configuration is normal and has a normal size and an upright wave. There is at least one P wave for every QRS complex, and there are more P waves than QRS complexes.

Difficulty: 2 Medium

Topic: Second Degree Atrioventricular (AV) Block, Type II (Mobitz II)

Learning Objective: 08.04 Analyze second degree atrioventricular (AV) block, Mobitz II, 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;
2.c Identify diagnostic and treatment modalities as they relate to each body system



21) Which of the following rhythms has a constant PR interval for all conducted beats?

- A) Second-degree AV block, Mobitz type I
- B) Second-degree AV block, Mobitz type II
- C) Third-degree AV block
- D) All of the answers are correct

Answer: B

Explanation: In second-degree AV block, Mobitz type II, the PR interval remains constant even after the QRS drop occurs.

Difficulty: 2 Medium

Topic: Second Degree Atrioventricular (AV) Block, Type II (Mobitz II)

Learning Objective: 08.04 Analyze second degree atrioventricular (AV) block, Mobitz II, 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

22) Which type of heart block tends to progress quickly to third-degree AV block or complete heart block?

- A) First-degree heart block
- B) Second-degree AV block, Mobitz type I
- C) Second-degree AV block, Mobitz type II
- D) Bundle branch block

Answer: C

Explanation: Second-degree heart block, Mobitz type II, frequently progresses very quickly to a third-degree AV block, or complete heart block, usually within seconds.

Difficulty: 2 Medium

Topic: Second Degree Atrioventricular (AV) Block, Type II (Mobitz II)

Learning Objective: 08.04 Analyze second degree atrioventricular (AV) block, Mobitz II, 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



23) How do you distinguish between second-degree AV blocks, Mobitz type I or Mobitz type II?

- A) In Mobitz type II, the PR intervals are constant.
- B) The ventricular rate is greater than 60 bpm with Mobitz type II.
- C) In Mobitz type II, the P waves appear to march right through the QRS complexes.
- D) In Mobitz type II, there appears to be a pattern to the irregularity.

Answer: A

Explanation: If the PR interval remains the same in a second-degree AV block, then the rhythm is Mobitz type II.

Difficulty: 2 Medium

Topic: Second Degree Atrioventricular (AV) Block, Type II (Mobitz II)

Learning Objective: 08.04 Analyze second degree atrioventricular (AV) block, Mobitz II, 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;
2.c Identify diagnostic and treatment modalities as they relate to each body system

24) Which heart block dysrhythmia is highly unstable and considered a critical condition?

- A) First-degree heart block
- B) Second-degree AV block, Mobitz type I
- C) Second-degree AV block, Mobitz type II
- D) Bundle branch block

Answer: C

Explanation: Second-degree AV block, Mobitz type II, is a highly unstable dysrhythmia that often progresses to third-degree heart block; it is therefore considered a critical condition.

Difficulty: 2 Medium

Topic: Second Degree Atrioventricular (AV) Block, Type II (Mobitz II)

Learning Objective: 08.04 Analyze second degree atrioventricular (AV) block, Mobitz II, 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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25) After you report a second-degree AV block, Mobitz type II, to a licensed practitioner, what should you prepare for?

- A) A code blue situation and application of a temporary pacemaker
- B) A nuclear exercise stress test
- C) An ambulatory monitor and an echocardiogram
- D) An angiogram and laboratory tests

Answer: A

Explanation: Second-degree AV block, Mobitz type II, can quickly lead to a complete heart block, which is a life-threatening situation that needs immediate attention. Transcutaneous pacing may be placed on standby.

Difficulty: 2 Medium

Topic: Second Degree Atrioventricular (AV) Block, Type II (Mobitz II)

Learning Objective: 08.04 Analyze second degree atrioventricular (AV) block, Mobitz II, 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;

8.g Recognize and respond to medical office emergencies

- 26) When would you use the mnemonic "Lengthen, lengthen, drop equals Wenckebach"?
- A) To differentiate second-degree heart block from third-degree heart block
 - B) To differentiate first-degree heart block from left bundle branch block
 - C) To differentiate second-degree Mobitz type I heart block from Mobitz type II heart block
 - D) To differentiate first-degree heart block from third-degree heart block

Answer: C

Explanation: This mnemonic is used to differentiate between a second-degree AV block Mobitz type I or Mobitz type II.

Difficulty: 2 Medium

Topic: Second Degree Atrioventricular (AV) Block, Type II (Mobitz II)

Learning Objective: 08.04 Analyze second degree atrioventricular (AV) block, Mobitz II, and its 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



- 27) Which heart block dysrhythmia is known as complete heart block (CHB)?
- A) First-degree heart block
 - B) Second-degree AV block, Mobitz type I
 - C) Second-degree AV block, Mobitz type II
 - D) Third-degree AV block

Answer: D

Explanation: Third-degree AV block is also known as complete heart block (CHB).

Difficulty: 2 Medium

Topic: Third Degree Atrioventricular (AV) Block (Complete)

Learning Objective: 08.05 Analyze third degree atrioventricular (AV) block and its 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; 2.b Describe common diseases, symptoms and etiologies as they apply to each system

- 28) Which of the following heart block dysrhythmias is identified by regular P-P and R-R intervals that are firing at two distinctly different rates, causing variable PR intervals?
- A) First-degree heart block
 - B) Second-degree AV block, Mobitz type I
 - C) First-degree AV block
 - D) Third-degree AV block

Answer: D

Explanation: In third-degree AV block, there is no correlation between atrial and ventricular depolarization. The P-P and R-R intervals are regular when measured, and the atria and ventricles are firing at completely different rates, resulting in a variable PR interval.

Difficulty: 2 Medium

Topic: Third Degree Atrioventricular (AV) Block (Complete)

Learning Objective: 08.05 Analyze third degree atrioventricular (AV) block 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



29) In which heart block dysrhythmia would a patient probably be unconscious and require immediate medical intervention?

- A) First-degree heart block
- B) Second-degree AV block, Mobitz type I
- C) Second-degree AV block, Mobitz type II
- D) Third-degree AV block

Answer: D

Explanation: In third-degree AV block, the slower ventricular rate increases the likelihood that a patient will be unconscious and require immediate medical intervention.

Difficulty: 2 Medium

Topic: Third Degree Atrioventricular (AV) Block (Complete)

Learning Objective: 08.05 Analyze third degree atrioventricular (AV) block 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;

8.g Recognize and respond to medical office emergencies

30) QRS complexes that measure 0.12 seconds or greater and have a heart rate between 20 and 40 bpm indicate that the impulses causing ventricular depolarization are coming from the _____.

- A) SA node
- B) AV node
- C) Purkinje fibers
- D) Interatrial pathways

Answer: C

Explanation: In third-degree heart block, if the block is low in the bundle of His, the pacemaker would come from the slow (20 to 40 bpm) Purkinje network.

Difficulty: 3 Hard

Topic: Third Degree Atrioventricular (AV) Block (Complete)

Learning Objective: 08.05 Analyze third degree atrioventricular (AV) block 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;

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



31) What is the term for the condition in which the atria and ventricles are electrically separated from one another?

- A) Atrial kick
- B) AV dissociation
- C) Automaticity
- D) Asystole

Answer: B

Explanation: In complete heart block, the atria and ventricles are electrically separated from one another. This is often referred to as AV dissociation.

Difficulty: 2 Medium

Topic: Third Degree Atrioventricular (AV) Block (Complete)

Learning Objective: 08.05 Analyze third degree atrioventricular (AV) block and its 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; 2.b Describe common diseases, symptoms and etiologies as they apply to each system

32) Identify the following rhythm:



- A) First-degree heart block
- B) Second-degree AV block, Mobitz type I
- C) Second-degree AV block, Mobitz type II
- D) Third-degree AV block

Answer: D

Explanation: The P-P and R-R intervals are regular but have different rates. The P wave is normal in size and configuration but may be buried in the QRS complex. These are characteristics of third-degree AV block.

Difficulty: 2 Medium

Topic: Third Degree Atrioventricular (AV) Block (Complete)

Learning Objective: 08.05 Analyze third degree atrioventricular (AV) block 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



33) You have performed an ECG on a patient at the walk-in clinic where you work. The ECG tracing shows that the patient is in third-degree block. What is your first responsibility to this

patient?

- A) Observe the patient for symptoms of low cardiac output.
- B) Report any signs and symptoms to a licensed practitioner.
- C) Initiate emergency procedures if needed.
- D) Mount and identify the rhythm strips for documentation.

Answer: A

Explanation: When a patient is in third-degree AV block, your first responsibility is to observe the patient for signs and symptoms of low cardiac output. If the patient displays any symptoms, notify a licensed practitioner immediately. It may be necessary to initiate a code blue alarm.

Documentation is important, but the patient comes first.

Difficulty: 2 Medium

Topic: Third Degree Atrioventricular (AV) Block (Complete)

Learning Objective: 08.05 Analyze third degree atrioventricular (AV) block and its effect on the patient, including basic patient care and treatment.

Bloom's: Apply

Accessibility: Keyboard Navigation

ABHES: 2.c Identify diagnostic and treatment modalities as they relate to each body system; 8.g Recognize and respond to medical office emergencies

34) In which heart block dysrhythmia are all electrical impulses originating above the ventricles blocked and prevented from reaching the ventricles?

- A) Left bundle branch block
- B) Second-degree AV block, Mobitz type I
- C) Second-degree AV block, Mobitz type II
- D) Third-degree AV block

Answer: D

Explanation: In third-degree heart block, all electrical impulses originating above the ventricles are blocked and prevented from reaching the ventricles.

Difficulty: 2 Medium

Topic: Third Degree Atrioventricular (AV) Block (Complete)

Learning Objective: 08.05 Analyze third degree atrioventricular (AV) block 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



35) Which of the following is characteristic of an ECG tracing for a first-degree heart block?

- A) The PR intervals are greater than 0.20 seconds in duration.
- B) The P waves are inverted.
- C) Not all of the P waves are followed by QRS complexes.
- D) The underlying rhythm is slow.

Answer: A

Explanation: In first-degree heart block, the PR interval is greater than 0.20 seconds and is constant.

Difficulty: 2 Medium

Topic: First Degree Atrioventricular (AV) Block

Learning Objective: 08.02 Analyze first degree atrioventricular (AV) block 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;
2.c Identify diagnostic and treatment modalities as they relate to each body system

36) In third-degree AV block, if the impulse causing ventricular depolarization is coming from the AV junction, what will the heart rate be?

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

Answer: B

Explanation: If the impulse causing ventricular depolarization is coming from the area of the AV tissue, the heart rate is likely to be 40 to 60 bpm.

Difficulty: 3 Hard

Topic: Third Degree Atrioventricular (AV) Block (Complete)

Learning Objective: 08.05 Analyze third degree atrioventricular (AV) block 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;
2.c Identify diagnostic and treatment modalities as they relate to each body system

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37) What indicates whether the heart block is low (in the bundle of His) or higher (near the AV junction)?

- A) The ventricular rate and QRS configurations
- B) The P wave configuration and the PR interval
- C) The atrial rate and the P wave configuration
- D) The QRS configuration and the P waves

Answer: A

Explanation: The ventricular rate and QRS configurations are keys indicators of the level of the heart block.

Difficulty: 3 Hard

Topic: Third Degree Atrioventricular (AV) Block (Complete)

Learning Objective: 08.05 Analyze third degree atrioventricular (AV) block 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;
2.c Identify diagnostic and treatment modalities as they relate to each body system

38) In which type of heart block are all of the impulses eventually conducted to the ventricles?

- A) First-degree AV block

- B) Second-degree AV block, Mobitz type I
- C) Second-degree AV block, Mobitz type II
- D) Third-degree AV block

Answer: A

Explanation: First-degree AV block is not a true block; there is a delay in conduction from the SA node to the AV node, but each impulse is eventually conducted.

Difficulty: 1 Easy

Topic: First Degree Atrioventricular (AV) Block

Learning Objective: 08.02 Analyze first degree atrioventricular (AV) block 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



39) How does first-degree heart block affect a patient's cardiac output?

- A) It lowers the cardiac output.
- B) It raises the cardiac output.
- C) The cardiac output depends on the ventricular response.
- D) There is no effect on the cardiac output.

Answer: D

Explanation: In first-degree heart block, a patient should be able to maintain normal cardiac output. A patient should experience no signs or symptoms with this rhythm.

Difficulty: 1 Easy

Topic: First Degree Atrioventricular (AV) Block

Learning Objective: 08.02 Analyze first degree atrioventricular (AV) block 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

40) Which of the following statements about second-degree heart block, Mobitz type I, is correct?

- A) It is an unstable condition that can quickly lead to complete heart block.
- B) It is usually a temporary condition that resolves itself.
- C) It is difficult to control using medication.
- D) It requires immediate emergency measures.

Answer: B

Explanation: Second-degree AV block, Mobitz type I, is usually caused by inflammation around the AV node. The condition is often temporary and resolves itself and returns to a normal rhythm.

Difficulty: 2 Medium

Topic: Second Degree Atrioventricular (AV) Block, Type I (Mobitz or Wenckebach)

Learning Objective: 08.03 Analyze second degree atrioventricular (AV) block, Mobitz I, 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



41) The degree of blockage in heart block rhythms depends on which of the following?

- A) The patient's age and physical condition
- B) The number of electrical impulses generated
- C) The affected area and the cause of the delay or blockage
- D) The ventricular heart rate

Answer: C

Explanation: The degree of blockage depends on the area affected and the cause of the delay or blockage.

Difficulty: 2 Medium

Topic: Introduction to Heart Block Dysrhythmias

Learning Objective: 08.01 Describe the various heart block dysrhythmias.

Bloom's: Remember

Accessibility: Keyboard Navigation

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

42) In first-degree atrioventricular block, how does the PR interval appear on an ECG tracing?

- A) It is prolonged and measures more than 0.20 seconds.
- B) It becomes progressively longer until a QRS complex is dropped.
- C) It is irregular because of nonconducted impulses.
- D) It is usually within normal limits.

Answer: A

Explanation: First-degree AV block is a delay in conduction that results in a longer than normal PR interval that measures more than 0.20 seconds.

Difficulty: 2 Medium

Topic: First Degree Atrioventricular (AV) Block

Learning Objective: 08.02 Analyze first degree atrioventricular (AV) block and its 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



43) Which statement best describes the morphology of the P waves in second-degree AV block, Mobitz type II?

- A) The P waves are normal in size and shape, and the number of P waves equals the number of QRS complexes.
- B) The P waves are normal in size and shape, and there is at least one P wave for every QRS complex.
- C) The P waves are inverted, and the number of P waves equals the number of QRS complexes.
- D) The P waves are normal in size and shape, and there is no association between the P waves and the QRS complexes.

Answer: B

Explanation: The P wave morphology in second-degree AV block, Mobitz type II, is normal, with an upright wave of normal size. There is at least one P wave for every QRS complex, and there are more P waves than QRS complexes.

Difficulty: 3 Hard

Topic: Second Degree Atrioventricular (AV) Block, Type II (Mobitz II)

Learning Objective: 08.04 Analyze second degree atrioventricular (AV) block, Mobitz II, and its effect on the patient, including basic patient care and treatment.

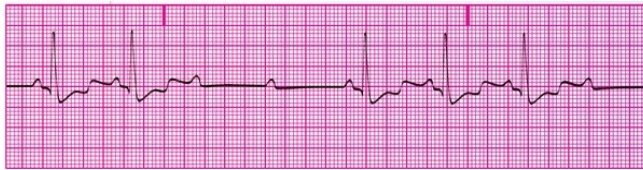
Bloom's: Understand

Accessibility: Keyboard Navigation

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



44) You have performed an ECG on a patient in the critical care unit at the hospital. A portion of the ECG tracing is shown below. What type of heart block does this patient have?



- A) First-degree heart block
- B) Second-degree AV block, Mobitz type I
- C) Second-degree AV block, Mobitz type II
- D) Third-degree AV block

Answer: C

Explanation: The tracing shows some dropped QRS complexes, so there are more P waves than QRS complexes. When the QRS complex is present, however, the PR Interval is constant. This is a second-degree AV block, Mobitz type II.

Difficulty: 2 Medium

Topic: Second Degree Atrioventricular (AV) Block, Type II (Mobitz II)

Learning Objective: 08.04 Analyze second degree atrioventricular (AV) block, Mobitz II, and its effect on the patient, including basic patient care and treatment.

Bloom's: Apply

Accessibility: Keyboard Navigation

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

45) When might a patient with second-degree block, Mobitz type II, exhibit symptoms of decreased cardiac output?

- A) When the rate of ventricular contractions decreases below 40 bpm
- B) When the rate of atrial contractions decreases below 60 bpm
- C) When the rate of ventricular contractions increases above 60 bpm
- D) When the rate of atrial contractions increases above 80 bpm

Answer: A

Explanation: A patient with second-degree AV block, Mobitz type II, may or may not exhibit

symptoms of decreased cardiac output; however, if the rate of ventricular contractions decreases to 40 bpm or lower, the patient will begin to show signs of decreased cardiac output.

Difficulty: 2 Medium

Topic: Second Degree Atrioventricular (AV) Block, Type I (Mobitz or Wenckebach)

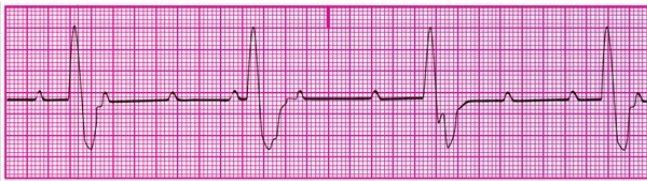
Learning Objective: 08.03 Analyze second degree atrioventricular (AV) block, Mobitz I, and its effect on the patient, including basic patient care and treatment.

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

46) You have been asked to perform an ECG on a patient in the emergency department. The patient is pale, and while you are performing the ECG, he loses consciousness. A portion of the ECG tracing is shown below. After noting the patient's condition, what should you do?



- A) Notify the licensed practitioner immediately.
- B) Document the rhythm and place it in the patient's chart.
- C) Reassure the patient's spouse that this is not a serious problem.
- D) Re-perform the ECG to double-check your findings.

Answer: A

Explanation: This patient is in third-degree block and requires immediate medical intervention. The licensed practitioner must be notified immediately.

Difficulty: 2 Medium

Topic: Third Degree Atrioventricular (AV) Block (Complete)

Learning Objective: 08.05 Analyze third degree atrioventricular (AV) block 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

47) Which type of AV block is sometimes reported with a ratio of P waves to QRS complexes?

- A) First-degree heart block
- B) Second-degree AV block, Mobitz type I
- C) Second-degree AV block, Mobitz type II
- D) Third-degree AV block

Answer: C

Explanation: In second-degree AV block, Mobitz type II, the blocked QRS complexes sometimes occur in a pattern, such as four P waves for every QRS complex. When this occurs, the ratio of P waves to QRS complexes is included in the rhythm interpretation.

Difficulty: 3 Hard

Topic: Second Degree Atrioventricular (AV) Block, Type II (Mobitz II)

Learning Objective: 08.04 Analyze second degree atrioventricular (AV) block, Mobitz II, 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;

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



48) When the ECG tracing shows that a patient has a Wenckebach heart block, which of the following would the licensed practitioner be most likely to order?

- A) Immediate cardioversion to prevent a third-degree heart block
- B) Further observation for signs of decreasing cardiac output
- C) An MRI to determine further details on the patient's condition
- D) A temporary pacemaker to prevent low cardiac output

Answer: B

Explanation: Treatment for a patient with a second-degree AV block, type I (Wenckebach) is based on how the patient is tolerating the rhythm, so the practitioner may order observation for signs and symptoms of low cardiac output.

Difficulty: 3 Hard

Topic: Second Degree Atrioventricular (AV) Block, Type I (Mobitz or Wenckebach)

Learning Objective: 08.03 Analyze second degree atrioventricular (AV) block, Mobitz I, and its effect on the patient, including basic patient care and treatment.

Bloom's: Apply

Accessibility: Keyboard Navigation

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

49) Which two types of heart block result in a variable PR interval?

- A) First-degree and second-degree Mobitz type I
- B) Second-degree Mobitz type I and second-degree Mobitz type II
- C) Second-degree Mobitz type I and third degree
- D) Second-degree Mobitz type II and third degree

Answer: C

Explanation: Both second-degree Mobitz type I and third-degree AV blocks result in a variable PR interval.

Difficulty: 3 Hard

Topic: Third Degree Atrioventricular (AV) Block (Complete)

Learning Objective: 08.05 Analyze third degree atrioventricular (AV) block 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



50) Which two types of heart block have a constant PR interval?

- A) First-degree and second-degree type Mobitz I
- B) First degree and second degree Mobitz type II

- C) Second-degree Mobitz type I and third degree
- D) Second-degree Mobitz type II and third degree

Answer: B

Explanation: Both first-degree and second-degree Mobitz type II AV blocks present with a constant PR interval.

Difficulty: 3 Hard

Topic: Third Degree Atrioventricular (AV) Block (Complete)

Learning Objective: 08.05 Analyze third degree atrioventricular (AV) block 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