Rhythm Strips Analysis for Practice

Practice #1:

1. What is the Rate?
   (R-R)
   70 bpm

2. Is there a "P" wave with every "QRS" complex?

   Yes

3. What is the width of the "QRS"?

0.08 seconds

4. What is the length of the "PR" interval?

0.16 seconds

5. What is the rhythm?

Normal sinus rhythm

6. Any complications with this rhythm?

No

7. What interventions are anticipated?
Taking vital signs, ensure they have a pulse because PEA can look the same.

Rhythm Strips Analysis for Part I of Intro to EKG

Practice #2

Isoelectric

1. What is the Rate?
   (R-R)
   70 bpm

2. Is there a "P" wave with every "QRS" complex?

Yes

3. What is the width of the "QRS"?

0.08 seconds

4. What is the length of the "PR" interval?

I said 0.1 seconds, the correct answer is 0.12 seconds.

5. What is the rhythm?

Sinus rhythm but the T waves are inverted which means there is some sort of ischemia.


6. Any complications with this rhythm?
The heart is ischemic which means it is not getting an adequate amount of oxygen that it needs. This could lead to injury or infarct if not treated.

7. What interventions are anticipated?

Further cardiac testing (12 lead ECG, echo possibly to test for anatomic complications, or stress test), draw labs and ensure there is no active cell death that is not seen on the ECG, give oxygen. Let the physician know if he doesn't already.

Rhythm Strips Analysis for Part I of Intro to EKG

Practice #3

Isoelectric
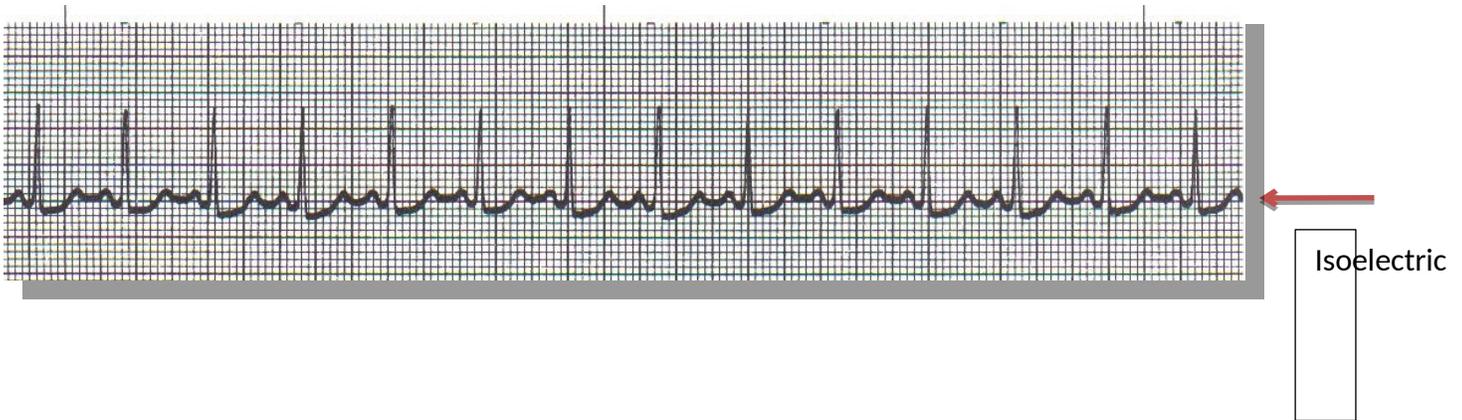
1. What is the Rate?
   (R-R)
   130 bpm

2. Is there a "P" wave with every "QRS" complex?

Yes

3. What is the width of the "QRS"?

 0.08 seconds

4. What is the length of the "PR" interval?

0.12 seconds

5. What is the rhythm?

Sinus tachycardia, there is a very small amount of depression but nothing too crazy, could be caused by poor perfusion due to the fast rate.
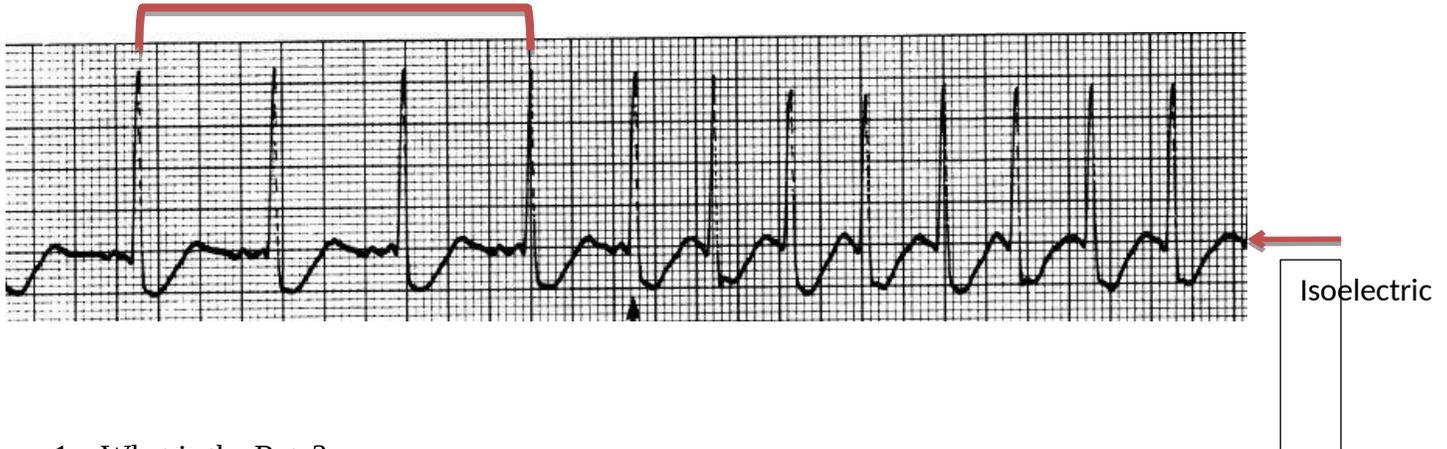
6. Any complications with this rhythm?
The heart does not have time to fill back up properly.

7. What interventions are anticipated?

Depends on what is causing the tachycardia. If it is a lack of volume, fluids or a pressor will be given. If it is infection, the infection will be treated, etc.

Rhythm Strips Analysis for Part I of Intro to EKG

Practice #4

Isoelectric

1. What is the Rate?
   (R-R)

   The average rate here is 110 bpm, but it is slower at the beginning and faster at the end.

2. Is there a "P" wave with every "QRS" complex?

   No, this is a fib then turns into a fib with RVR, so there will not be a "P" wave.

3. What is the width of the "QRS"?

   0.08 seconds

4. What is the length of the "PR" interval?

   There's no P wave so that cannot be determined.

5. What is the rhythm?
   Initially it is a fib then turns into a fib with RVR, but the a fib with RVR is sudden onset so paroxysmal.

6. Any complications with this rhythm?
   The heart is not able to pump out the amount of blood that it needs to which will lead to low perfusion.

7. What interventions are anticipated?

The patient can be treated either chemically or electrically, this depends on what symptoms/ if the patient is stable. Chemically will be with an antiarrhythmic such as amiodarone or Cardizem, electrically they would have to be cardioverted.

Rhythm Strips Analysis for Part I of Intro to EKG

Practice #5

"T" wave
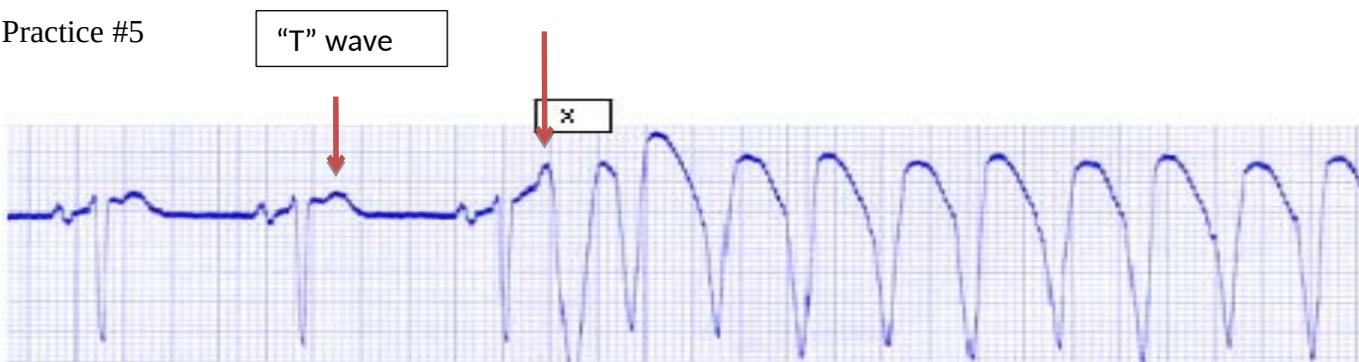
1. What is the Rate?
   (R-R)
   The initial rate if there was no rhythm change would be around 70 as an estimate, but increases significantly due to vtac.

2. Is there a "P" wave with every "QRS" complex?

Initially yes, but not with the v tac.

3. What is the width of the "QRS"?

0.08 then changed to ~0.3.

4. What is the length of the "PR" interval?

 Initially 0.2.

5. What is the rhythm?
   Ventricular tachycardia.

6. Any complications with this rhythm?

This is a potentially lethal rhythm, it can cause low blood pressure, syncope, cardiac arrest, poor perfusion, etc.

7. What interventions are anticipated?

If not responsive or stable, or if pt does not have a pulse we would treat this as a code and perform CPR, etc. If there is a pulse and they are stable, we could have them bear down, provide oxygen, cough, give medications such as amiodarone, etc. Treat the patient first.

Rhythm Strips Analysis for Part I of Intro to EKG

Practice #6
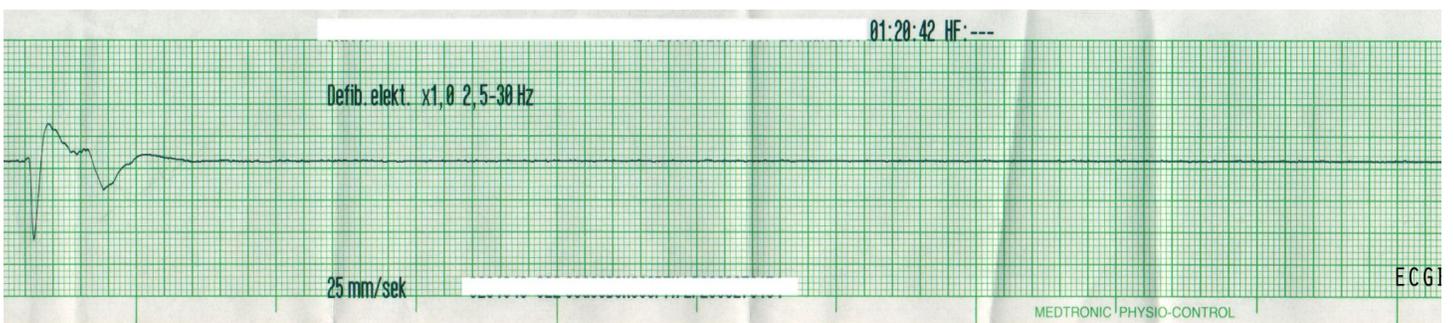
1. What is the Rate?
   (R-R)
   There is no rate. Id ensure they have a pulse, check leads.

2. Is there a "P" wave with every "QRS" complex?

No.

3. What is the width of the "QRS"?

0.2 prior to asystole.

4. What is the length of the "PR" interval?

Cannot be determined.

5. What is the rhythm?

Asystole.

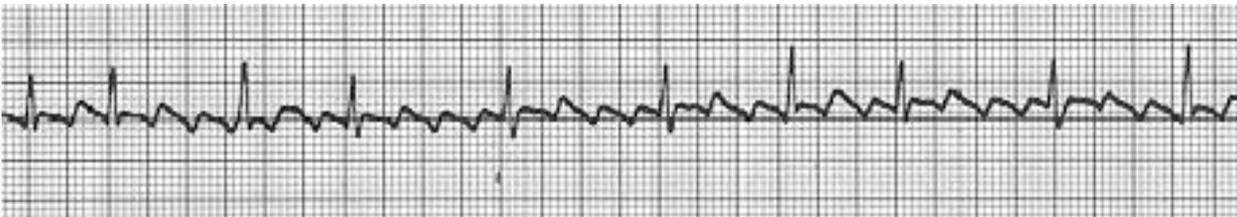6. Any complications with this rhythm?
   Yes the patient is not alive. High morbidity rate.

7. What interventions are anticipated?

Start ACLS protocols, don't defibrillate unless rhythm changes.

Rhythm Strips Analysis for Part I of Intro to EKG

Practice #7

1. What is the Rate?
   (R-R)
   90bpm

2. Is there a "P" wave with every "QRS" complex?

No, they are F waves in atrial flutter.

3. What is the width of the "QRS"?

0.08 seconds

4. What is the length of the "PR" interval?

There is no P wave to be able to measure.

5. What is the rhythm?
   Atrial flutter
6. Any complications with this rhythm?
   Increased risk of clotting leading to stroke, heart attack, PE etc. Low perfusion due to decreased cardiac output.
7. What interventions are anticipated?

If they are stable, medications to break up potential clots or to prevent clots can be given. If they are unstable they can be cardioverted.

Rhythm Strips Analysis for Part I of Intro to EKG

Practice #8

Isoelectric
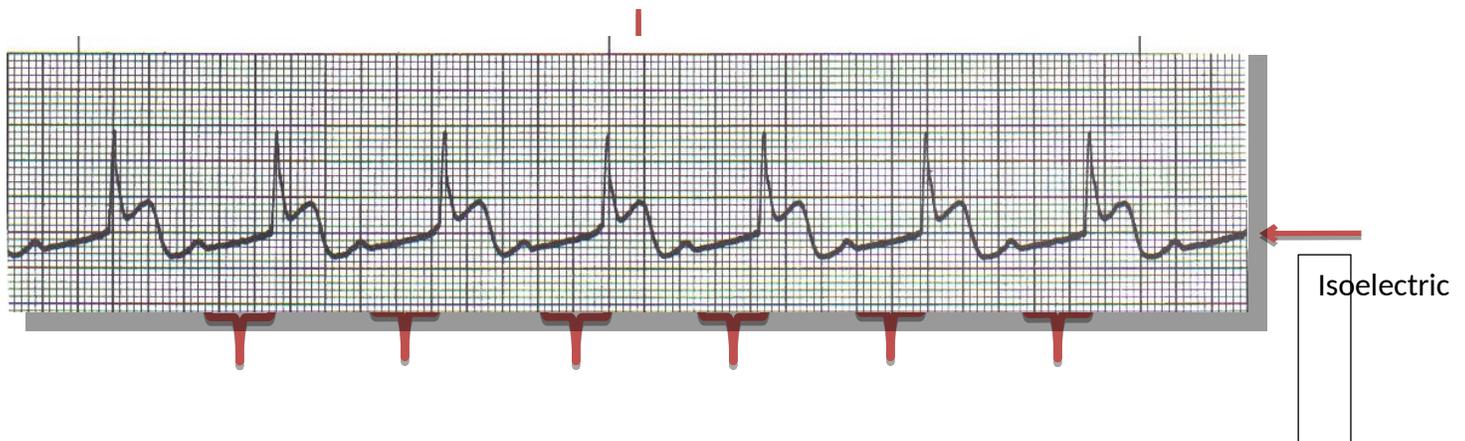
1. What is the Rate?
   (R-R)

60 bpm

2. Is there a "P" wave with every "QRS" complex?

Yes.

3. What is the width of the "QRS"?

0.2 seconds, correct answer is 0.16.

4. What is the length of the "PR" interval?

0.5 seconds, correct answer is 0.48.

5. What is the rhythm?
   Sinus rhythm with ST elevation, indicating a myocardial infarction.
6. Any complications with this rhythm?
   This is indicative of a heart attack, which can be lethal. The patient needs treatment immediately or they can go into cardiac arrest.
7. What interventions are anticipated?

Drug therapy such as oxygen, nitroglycerine, aspirin, morphine. The patient needs a cath lab to officially resolve the issue.

You can do this!