



Cardiac Rhythms

Description

Today in many inpatient and outpatient care settings, cardiac monitoring is commonplace; those providing patient care are taking care of all types of patients including cardiac patients. Cardiac monitoring is fast becoming the standard of care.

As a nurse caring for these patients, you are responsible for monitoring and interpreting cardiac dysrhythmias. You must develop critical thinking skills that help you evaluate the significance of these dysrhythmias and know when to intervene on the patients' behalf.

For those of you who have never had a dysrhythmia class, you have come to the right place; I would welcome the opportunity to help you learn. Those of you having had a previous class, this will be a good review plus you will learn some new techniques to take with you.

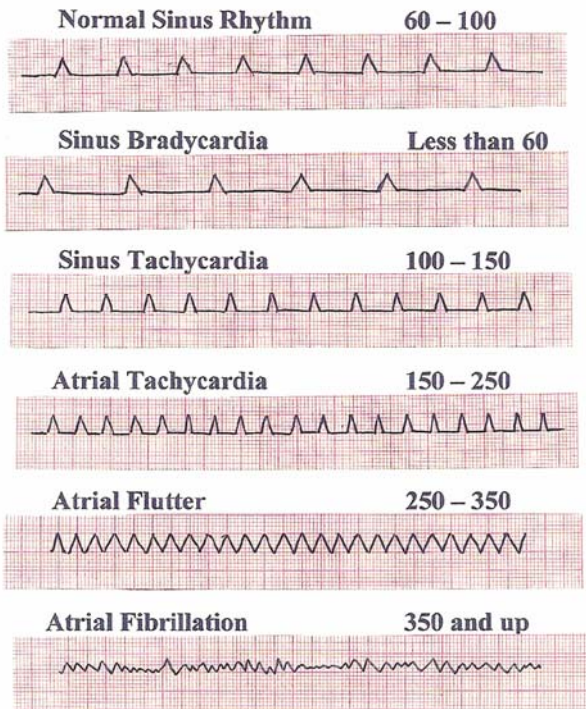
EKGs 4U offers a twenty-four hour class taught in eight hour segments over three days. The course objectives include:

- ♥ Terminology for cardiac rhythms
- ♥ Summarize basic electrophysiology
- ♥ Discuss characteristics of specific leads
- ♥ Explain importance of rates
- ♥ Identify origin of rhythms in relation to the conduction system
- ♥ Recall and apply method of rhythm analysis
- ♥ Interpret and recognize basic cardiac rhythms
- ♥ Differentiate between artifact and a true rhythm
- ♥ Explore various concepts used in rhythm interpretation

See next page for a useful tool

RATE RELATED RHYTHMS

(Atrial rates as demonstrated by P waves only)



Steps to Rhythm Interpretation

Criteria

Normal Criteria (as in NSR)

Atrial

Rhythm
Rate

Regular
60 to 100 bpm

Use Normal Sinus Rhythm as a baseline comparison for other rhythms

Ventricles

Rhythm
Rate

Regular
60 to 100 bpm

P for every QRS?
QRS for every P?

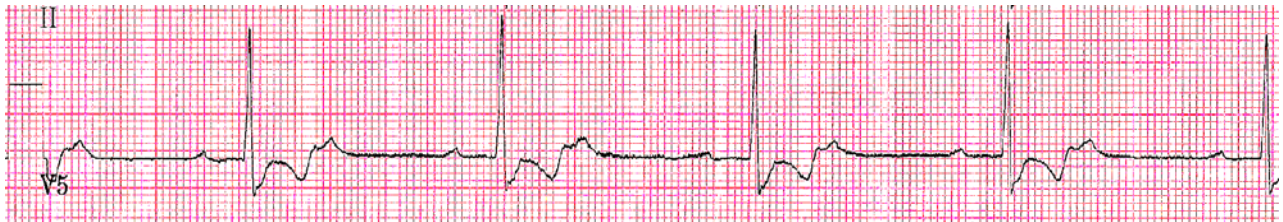
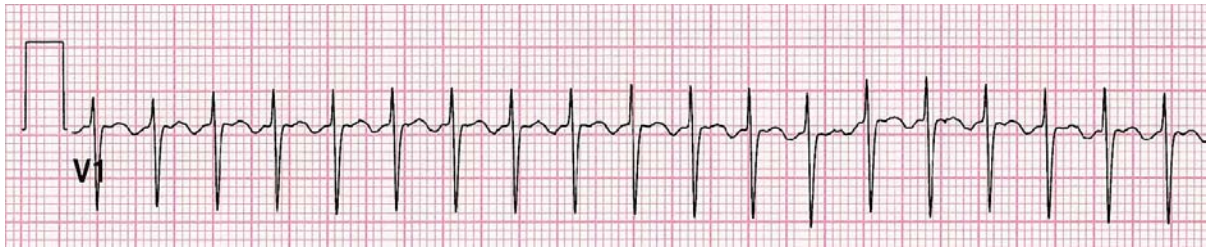
Yes
Yes

Width of QRS
Duration of PRI
QT interval
P to P = R to R

0.04 to 0.11 Sec.
0.12 to 0.20 Sec.
0.36 to 0.44 Sec.
Yes

Determine the origin of the rhythm
Look for what is abnormal in the strip compared to NSR

Take a look at the following four rhythm strips. Can you interpret them correctly?



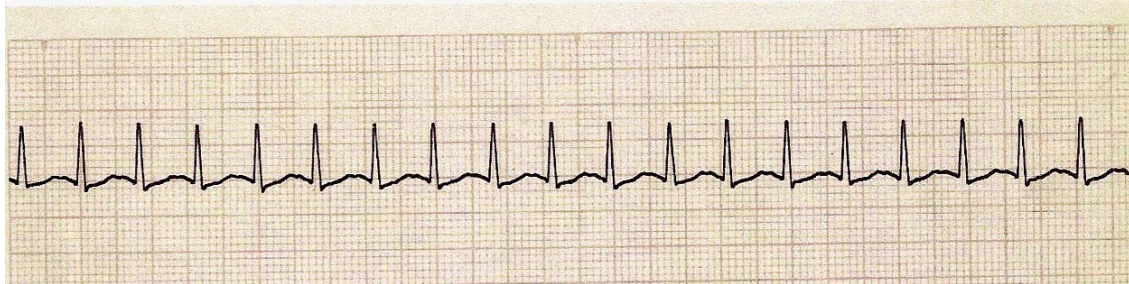
The QRS complex, the heart rate and the rhythm origin are all key components to help guide you to the correct interpretation. Let's look at the following example using the three components.

First look at the QRS complex and ask yourself is the width narrow (normal - <0.12 seconds) or wide (abnormal - >0.11 seconds). Rhythms having a narrow QRS complex originate above the ventricles. Keep in mind there are three places above the ventricles where rhythms originate. These include the Sinus Node, Atria and the AV Node. If you can visualize P waves, great, if not then the narrow QRS and the ventricular rate is all you need.

Next determine the atrial heart rate, represented by the P waves if seen. If for example the atrial rate is 210 bpm (if P waves are clearly visible), then you know the rhythm can not originate from the SA Node because the Sinus Node will not usually beat faster than 150 bpm. The AV Nodes' top rate is usually 180 bpm. So out of three possible places our example could originate from, we have ruled out two leaving the atria.

There are three basic common rhythms originating from the atria including Atrial Tachycardia, Atrial Flutter and Atrial Fibrillation. Using the Rate Related Rhythm card above, you will notice that a rate of 210 falls within the parameters of Atrial Tachycardia. Bingo, that is what the rhythm is.

This is an example of Atrial Tachycardia:



The Rate Related Rhythm card is an example of one of the tools and techniques to help you determine the probability of the correct interpretation. Of course there are various exceptions to many concepts, rhythm criteria, etc, but this will be very helpful when faced with a rhythm you may not know or are indecisive about. Developing a methodology of gathering rhythm criteria for rhythm interpretation will help ensure you have all the information possible to correctly identify most rhythms.

Another little tidbit: A Pearl

Most names given a rhythm have a minimum of two words. The first word of the two refers to the rhythms' origin. An example would be Sinus Tachycardia, sinus refers to the sinus node as the origin and tachycardia further defines which sinus rhythm, in this case tachycardia because the rate is greater than 100 and less than 150 bpm.

Your Benefits:

- ♥ You will achieve a higher standard of proficiency
- ♥ You will experience a higher level of self-confidence and satisfaction
- ♥ Physicians will have increased confidence in your abilities to care for their patients
- ♥ All class materials are provided – includes “Heart Print” Manual, calipers and CD
- ♥ Contact hours – 19.5 – through the Tennessee Nurses Association*
- ♥ Class size limited to ensure individual attention
- ♥ I am available for consulting while students are taking the class by phone or email, or in person if possible

We appreciate your interest in this course and will be here for you when you decide to learn more about cardiac rhythms.
Thank you.

* “This continuing nursing education activity was approved by the Tennessee Nurses Association, an accredited approver by the American Nurse Credentialing Center’s Commission on Accreditation”