

Sustained sinus bradycardia or tachycardia is defined by more than 30 seconds of a stable rhythm to distinguish it from transient responses associated with sleep disordered breathing events or arousals.

The heart rate slows during episodes of apnea and speeds up during arousals. If these changes are brief they are considered normal and should not be scored. Children under 6 years of age have faster heart rates, but the Task Force felt that there wasn't enough data to say what is normal and what is abnormal.

C. Score asystole when there is no heart beat for more than 3 seconds in patients older than 6 years.

This is the same as the American Heart Association recommendation. You should score asystole of 3 seconds. Your center's emergency procedures should tell you when an asystole becomes an emergency.



Figure 31. Asystole of 4.25 seconds. Vertical lines are 200 milliseconds apart.

D. Wide complex tachycardia is at least 3 beats in a row, a rate of at least 100 beats per minute, and a QRS interval of at least 120 milliseconds.

E. Narrow complex tachycardia is at least 3 beats in a row, a rate of at least 100 beats per minute, and a QRS interval of less than 120 milliseconds.

Measure the QRS interval from the beginning of the Q to the end of the S. You will need to expand your time base and increase the display of the ECG to make these measurements.

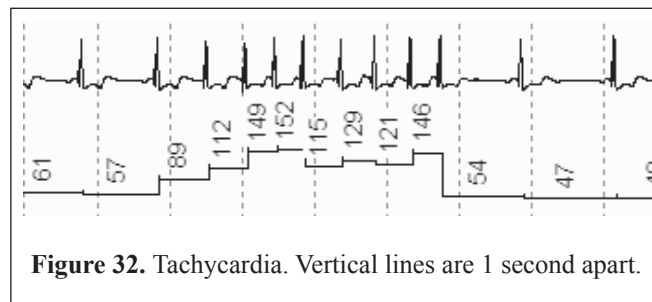


Figure 32. Tachycardia. Vertical lines are 1 second apart.

Figure 32 shows a portion of an epoch from an 82 year old man with heart disease. The upper channel is the ECG. The lower channel measures the time between the R parts of the QRS complexes. His usual heart rate is 60 beats per minute. During this episode the rate climbs to as high as 152 beats per minute, and stays above 100 beats per minute for 8 beats. This is tachycardia. To determine the type, we need to expand the time base.

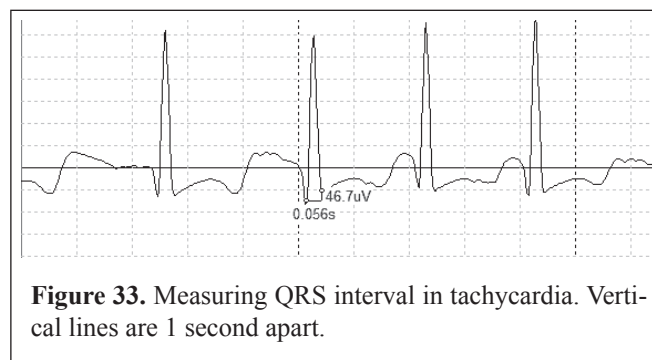


Figure 33. Measuring QRS interval in tachycardia. Vertical lines are 1 second apart.